federal register

Wednesday
December 7, 1988

Part II

Department of Transportation

Federal Highway Administration

49 CFR Parts 393 and 396

Parts and Accessories Necessary for Safe Operation; Inspection, Repair and Maintenance; Final Rules

BEST COPY AVAILABLE

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

49 CFR Part 393

[FHWA Docket No. MC-127]

RIN 2125-AB45

Parts and Accessories Necessary for Safe Operation

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Final rule.

SUMMARY: The FHWA is amending Part 393, Parts and Accessories Necessary for Safe Operation, of the Federal Motor Carrier Safety Regulations (FMCSRs). These amendments affect the requirements for axles and attached parts, brake systems, frame and frame assemblies, lights, steering systems, suspension systems, fuel systems, and other vehicle parts and accessories. This action is being taken to implement Sections 206 and 210 of the Motor Carrier Safety Act of 1984 (the Act) and to ensure that commercial motor vehicles have the parts and accessories necessary for safe operation in interstate commerce. These amendments also make technical amendments to various sections of Part 393 to provide nomenclature changes, to make editorial changes, to make the regulations more readable, and to add new authority provided by the Act.

The today's **Federal Register**, in the same part, is published another final rule amending Part 396, Inspection, Repair and Maintenance.

EFFECTIVE DATE: March 7, 1989.

FOR FURTHER INFORMATION CONTACT: Mr. Thomas P. Kozlowski, Office of Motor Carrier Standards, (202) 366-2981, or Mr. Thomas P. Holian, Office of the Chief Counsel (202) 366-1350, Federal Highway Administration, 400 Seventh Street, SW., Washington, DC 20590. Office hours are from 7:45 a.m. to 4:15 p.m. ET, Monday through Friday.

SUPPLEMENTARY INFORMATION: On October 11, 1984, Congress passed the Motor Carrier Safety Act of 1984 (Pub. L. 98-554, 98 Stat. 2832). The Act was signed into law by the President on October 30, 1984.

On January 10, 1985, the FHWA published an advance notice of proposed rulemaking (ANPRM) (50 FR 1245) seeking public comment concerning possible modifications to Parts 393 and 396 of the FMCSRs. Due to the complexity of these two areas of rulemaking, the FHWA separated the rulemaking action for Part 393 (OMCS Docket No. MC-127; Notice No. 52 FR 5893) and published a notice of proposed rulemaking (NPRM) on February 26, 1987 (52 FR 5892). The comment period was extended to June 29, 1987. While the dockets for Parts 393 and 396 were separated, the FHWA has reviewed both parts together because of the close relationship of the subjects.

A total of 90 comments were received on this NPRM. Most of these comments addressed more than one part of the regulation. Approximately 2,000 pages of comments were received. The responses included:

35 from truck and bus industry trade associations,
6 from individual motor carriers,
11 from government agencies,
7 from individuals,
28 from manufacturers, and
3 from research institutions.

Background

The FHWA is charged with the important role of promulgating regulations for commercial motor vehicles operating on our Nation's highways. These regulations have a vital role in ensuring, to the maximum extent practical, the safe operation of such vehicles. At the same time, the FHWA is properly concerned that its regulations do not impose unnecessary burdens on the motor carrier industry, and yet protect the safety of the general public.

Section 210 of the Act directs the Secretary of Transportation to afford interested parties an opportunity to comment on Part 393 of the FMCSRs. Section 206 of the Act directs the Secretary to issue regulations to ensure that commercial motor vehicles are safely equipped. A commercial motor vehicle is defined by Section 204 of the Act as any self-propelled or towed vehicle used on the highways in interstate commerce to transport passengers or property which: (1) Has a gross vehicle or combination weight rating of 10,001 pounds or more; (2) is designed to transport more than 15 passengers, including the driver; or (3) is used to transport hazardous materials in a quantity which requires the vehicle to be placarded.

The FHWA was assisted in reviewing Part 393. The FHWA funded the University of Michigan's Transportation Research Institute (UMTRI) to review European Safety Standards, the Society of Automotive Engineers, Inc.'s (SAE) Recommended Practices, and the various Canadian Safety Standards. The UMTRI was also charged with consulting with experts involved in the motor carrier industry (manufacturers, carriers, drivers, State and Federal enforcement personnel). An attempt was made to have this group of experts reach a consensus on various items contained in Part 393 (lighting devices, brakes, fuel systems, coupling devices, tires, protection against shifting or falling cargo, and miscellaneous parts and accessories). This study, including its recommendations, has been included in Docket No. MC-127 and used in this rulemaking.

Part 393 is the basis for the vehicle inspection currently performed on vehicles operated by motor carriers subject to the jurisdiction of the FMCSRs. It is important to note that Section 210 of the Act requires that each commercial motor vehicle pass an inspection, upon request, of all safety equipment required under Part 393 of the FMCSRs.

The final rule published today is substantially the same as proposed in the NPRM except that § 393.68, Natural Gas Fuel Systems, is deleted. Additional technical changes have been made to provide nomenclature changes consistent with the terminology of the Motor Carrier Safety Act of 1984. Technical changes have also been made to provide consistency with current FMVSS (Federal Motor Vehicle Safety Standards, 49 CFR Part 571). In response to comments, changes in format and wording have been made to the regulations for purposes of clarity. Minor editorial changes have also been made to make the regulations more readable. Those changes that are deemed significant are discussed in the Section-By-Section Analysis.

Review of Comments

The level of public interest was extensive. Due to the large number of comments to the NPRM, there will be no attempt to answer each individual comment; rather, the comments will be discussed by subject matter. Some comments request that additional research be done. Other commenters suggested changes that were not proposed initially in the NPRM and are therefore excluded from the final rule. However, since a number of these comments have merit, they will be addressed in future rulemaking in order to afford public comment on these proposals. As an example, the Environmental Protection Agency (EPA) requested that the minimum fill rate for gasoline fuel systems be changed to a rate of 10 gallons per minute.

One commenter supported all proposed revisions to Part 393. The other commenters supported various changes to Part 393. Several commenters requested closer coordination with the FMVSS. Every effort is being made to ensure the FMVSS and FMCSRs are

BEST COPY AVAILABLE

closely coordinated and consistent. This situation is made more complex because of a very detailed interrelationship between manufacturing, operations, maintenance, and inspection of a commercial vehicle. The FHWA fully intends to continue to work closely with the National Highway Traffic Safety Administration (NHTSA), the agency which promulgates the FMVSS, to ensure that future revisions to the FMCSRs and revisions to the FMVSS are consistent where appropriate.

Because of the close relationship of this Part with Part 396, Inspection, Repair and Maintenance, as discussed earlier, the FHWA also intends to continue to examine both parts in a future rulemaking. The intent of this action will be to streamline and consolidate the two parts. This examination will look at the possible elimination of standards that are contained in or will be included in the FMVSS or be eliminated because of minimal effects on safety.

One commenter requested raising the gross vehicle weight rating (GVWR) in the scope of this part from 10,000 to 15,000 pounds. The Act defines a commercial motor vehicle as any self-propelled or towed vehicle used on highways in interstate commerce to transport passengers or property, if such vehicle has a GVWR of 10,001 or more pounds. Therefore, the Act mandates that commercial motor vehicles with a GVWR of 10,001 pounds or more be subject to these regulations.

One commenter questioned why § 393.1 was revised. The NPRM proposed to revise the terminology used in that section to conform to the language of section 204 of the Act. The amendment is intended to provide conformity with the Act and does not change the scope of Part 393. The proposed amendment has been adopted in the final rule.

One commenter questioned compliance dates. This regulation "grandfathers" all existing equipment and grants appropriate lead time for new vehicles when necessary as indicated in that specific paragraph of this part. The requirement for parking brakes on all vehicles has an effective date 1 year after the effective date of this regulation. FHWA believes that minor changes in light lenses, fuel tank certification, and certification of tow-bars can be accomplished within the effective date of the rulemaking.

Five commenters wanted to revise the definition of "rear extremity" as found in § 393.5. This definition was placed in the rule to improve the understanding of the requirements for location and placement of lighting devices. There were no attempts made to regulate the more complex issues of size and weight. Therefore, the definition used in this part will apply only to the placement of safety devices such as lights, reflectors, or reflective materials. Overall length and width should be properly addressed in the FHWA Docket No. 87-5 (52 FR 7834, March 13, 1987) (23 CFR Part 658).

Fifty-two comments were received on Subpart B—Lighting Devices, Reflectors, and Electrical Equipment. The FHWA agrees with many of the commenters that more research is needed for any major change of this regulation. Despite the ease with which lighting standards can be criticized, the present system has remained basically intact since the early 1950's and has served its purpose reasonably well. Some users have experimented with and recommend rear-facing turn signal repeater lamps mounted about midway back along the trailer on the right and left sides. Such recommendations need more data and information regarding cost-effectiveness before rulemaking can be considered.

Rather than specifying a distance from which the lamp is visible under specified conditions, the FHWA deemed it appropriate to require the wiring to be of such size so as to deliver the required design voltage to the lamp for which it is serving as a conduit. Section 393.77 has been revised accordingly.

The only other section to receive a large amount of comments was Subpart E—Fuel Systems, which received 36 comments. Five commenters mentioned that fuel gauges are not necessary and are very difficult to maintain. One commenter supported this requirement as being necessary for the safe operation of motor vehicles. The majority of those opposed to requiring fuel gauges believed gauges are not needed and should remain optional at the discretion of operators. The FHWA has decided not to require fuel gauges due to lack of supporting data concerning safety. Therefore, proposed § 393.65(h) has been deleted from this final rule.

Several commenters raised questions about the size of crossover lines and their protection. The FHWA believes that additional research is required to answer the questions regarding size and strength of protection for crossover lines.

Sixteen comments dealt with compressed natural gas (CNG) fuel systems. The FHWA has decided to postpone rulemaking on the subject of compressed natural gas as a fuel in commercial motor vehicles until the Gas Research Institute's (GRI's) 24-month, $400,000 research program under contract to Southwest Research Institute (SWRI) is completed. The contract is scheduled for completion in early 1989. That research program addresses the issues of stress corrosion cracking in vehicle-mounted CNG storage cylinders, nondestructive test procedures for cylinders, and derivation of national inspection intervals to ensure safe cylinder operation. It is clear that, at present, insufficient data is available on CNG cylinder fatigue mechanisms with which to establish a national maximum retest interval. The FHWA agrees with the Gas Research Institute that a major goal of the ongoing GRI-SWRI research program is to develop a test procedure which can be performed with the cylinder in place, and which provides at the minimum, the same amount of information about cylinder integrity as the established hydrostatic retest procedures in 49 CFR 173.34(c).

Several commenters indicated that Supart I, Protection Against Shifting or Falling Cargo, is not adequate for today's demands. Research in this area is being conducted and changes will be issued in a future NPRM if appropriate.

Section-by-Section Analysis

Section 393.1 Scope of the rules in this part

Wording in § 393.1 has been changed to comply with the terminology of the Motor Carrier Act of 1984.

Section 393.3 Additional equipment and accessories

Redesignated § 393.3 is former § 393.2.

Section 393.5 Definitions

Section 393.5 has been added to define certain terms used in this regulation. After review of the comments from the NPRM, the following definitions were changed to provide greater clarity and accuracy: Brake tubing/hose, converter dolly, emergency brake system, fittings, lash, lower half fifth wheel, play, stop lamp, and upper half fifth wheel.

The following definitions have been added to the final rule: Agricultural commodity trailer, heater, heavy hauler trailer, pulpwood trailer, reflective material, and saddle-mount.

The following definitions have been deleted: Composite container, container, container appurtenance, container valve, cylinder, dew point, flammable range, fuel supply container, pressure relief device, pressure relief channels, and manual shut-off valve. These definitions have been deleted because the FHWA has decided to delay rulemaking on compressed natural gas as explained in the discussion of the comments below.

Section 393.11 Lighting devices and reflectors

Section 393.11 incorporates into a tabular format §§ 393.12, 393.13, 393.14, 393.15, 393.16, and 393.18. The lighting requirements are amended to be in conformity with FMVSS 571.108. This change will require a lamp to illuminate the rear license plate on all vehicles, a backup lamp on buses, trucks, and truck tractors, and parking lamps on the front of buses and trucks of less than 80 inches in overall width.

After review of the comments from the NPRM, the proposed requirement for converter dollies to have 2 stop lamps and 2 tail lamps has been changed to require one each. Also based on comments received, several technical changes to the tabular format were incorporated into the final rule. For height above the road surface, the center of the lamp at curb weight of the vehicle will be used.

Section 393.19 Requirements for turn signaling systems

This section has been changed to correctly indicate that a bus, truck, or truck tractor shall have a switch or combination of switches that will cause the turn signals on a vehicle to flash simultaneously as a vehicular traffic hazard warning. The former rule used the term, "motor vehicle" which included a semitrailer and full trailer. The requirement was not intended to apply to such vehicles.

Section 393.20 Clearance lamps to indicate extreme width and height

After review of the comments, it was deemed appropriate to let this rule stand as is, due to the variance in trailer configurations, and variations in the manner in which cargo is covered.

Section 393.22 Combination of lighting devices and reflectors

The proposed change to § 393.22 in the NPRM has been deleted after review of the comments to avoid the possibility of confusing the approaching motorist with a combination turn signal/stop lamp of the same intensity, in the same housing, and using the same lens.

Section 393.24 Requirements for head lamps and auxiliary road lighting lamps

The footnote number 1 to § 393.24 is changed to update SAE references to 1985 and to show that should a conflict between SAE references and FMVSS 571.108 arise, FMVSS 571.108 will prevail.

Section 393.25 Requirements for lamps other than head lamps

Reference to a SAE 1959 standard is updated to 1985 in paragraph (c) and (d). As proposed in the NPRM, paragraph (e) is removed and paragraphs (f) and (g) redesignated (e) and (f), respectively. Color requirements are found in FMVSS 571.108.

Section 393.26 Requirements for reflectors

As proposed in the NPRM, paragraph (d) is removed. Paragraph (b) is changed to require compliance with the specifications in FMVSS 571.108 in effect at the time of manufacture.

Section 393.27 Wiring specifications

As proposed in the NPRM, specific reference is made to SAE recommended practices for ignition cable, battery cable, and primary cable. Subjective wording has been changed to require the power source and wiring to be of such size as to meet the requirements as found in FMVSS 571.108 for minimum candle power. The proposed requirements for 2 circuits on the trailer and color coding of these circuits have been deleted because they were determined to be too design restrictive.

Section 393.28 Wiring to be protected

The proposed change to this section in the NPRM has been modified so as not to require access to wiring from the outside of a fully loaded and locked trailer. This change was made as such a requirement would be counterproductive for the overall reliability of the total system. The proposed prohibition of wiring adjacent to the fuel tank has been changed to prohibit terminals or splices in the wiring above the fuel tank except for fuel gauge sender wiring and terminals.

Section 393.31 Overload protective devices

The wording in this section has been changed from "motor vehicle" to "bus, truck, or truck tractor" since overload protective devices are normally found on such vehicles. The exception for buses having a seating capacity of eight has been raised to 15, including the driver, to comply with the Motor Carrier Safety Act of 1984.

Section 393.41 Parking brake systems

The proposed change for parking brakes in the NPRM has been modified to conform to the requirements for parking brakes as found in FMVSS 571.121. Agricultural commodity trailers, heavy hauler trailers, and pulpwood trailers are exempt from FMVSS 571.121; however, this final rule requires such vehicles to carry sufficient chocking blocks to prevent movement when such vehicles are parked.

Section 393.42 Brakes required on all wheels

Section 393.42 is amended to include the illustration for light weight trailers inadvertently deleted from this section in OMCS Docket No. MC–124 (52 FR 2801, January 27, 1987).

Section 393.44 Front brake protection

The proposed change to § 393.44 in the NPRM is modified to read that a driver of a bus will have a means to apply the brakes on the rear wheels should breakage occur to any brake lines on any front wheel. This device may be located forward of the driver's seat. This change incorporates past interpretations of this rule.

Section 393.45 Brake tubing and hose, adequacy

In this section, general requirements remain the same as found in the present regulation. Paragraph (b) is changed to update the special requirements for brake tubing and hose to more current SAE recommended practices and test procedures. In paragraph (c) the reference to SAE Standard J844 has been moved to paragraph (b), and in paragraph (d) the intended use for metallic and nonmetallic brake tubing and hose is explained. Paragraph (d) also allows the use of tubing through a point of articulation under certain specific conditions.

Section 393.46 Brake tubing and hose connections

To § 393.46, a new paragraph (f) has been added to set standards for splices in brake tubing. This additional paragraph is necessary to make enforcement reasonable and uniform.

Section 393.50 Reservoir required

In § 393.50, paragraph (c), concerning applicability of this section, is eliminated to be in conformity with the Motor Carrier Safety Act of 1984, and paragraph (a) is revised to delete reference to paragraph (c).

Section 393.51 Warning devices and gauges

Section 393.51 has been revised to eliminate paragraph (g), which provided exceptions for certain types of vehicles. This amendment is consistent with the Motor Carrier Safety Act of 1984.

Section 393.65 All fuel systems

The NPRM proposed that fuel gauges become mandatory. After review of the

comments received on the proposal, FHWA has decided not to make this requirement mandatory; therefore, there is no change to § 393.65.

Section 393.67 Liquid fuel tanks

Section 393.67 is amended by revising paragraph (f). This change requires the name of the manufacturer to be included in the certification on the fuel tank. This requirement was inadvertently removed in a previous rule change.

Section 393.68 Natural gas fuel system

This section was proposed in the NPRM, but FHWA has decided that such a section would be premature in light of the research presently being conducted. (See Review of Comments section for a more complete discussion of this decision.)

Section 393.69 Liquefied petroleum gas system

This section is revised to indicate the correct address of the National Fire Protection Association whose standard is referenced in this section.

Section 393.71 Coupling and towing methods, driveaway-towaway operation

This section has been changed to better define the method used to measure off-tracking and to require allowable maximum gross weight to be marked on the tow-bar. The definition for saddle-mount in paragraph (i) has been removed and placed in § 393.5. Paragraph (i) has been placed in reserve for future use. These changes have been made in order that this section may be more enforceable and easier to follow.

Section 393.75 Tires

This section has been changed to be more specific regarding damaged tires not to be used, and to require tire load ratings to meet the requirements of FMVS 571.119. More specific requirements for the use of damaged tires have been added to provide safer operating conditions. Table 1, "Tire Load Rating Limits at Various Cold Inflation Pressures," has been deleted.

Section 393.76 Sleeper berth

This section has been changed to allow a fluid-filled mattress, such as one filled with air or a liquid, to be used in lieu of an innerspring, cellular rubber, or foam mattress. This change makes the required equipment for a sleeper berth less restrictive.

Section 393.77 Heaters

This section has been changed by removing the definition of a heater and placing the definition in § 393.5. The exception for a bus having a seating capacity of eight has been changed to 15, including the driver, to comply with the Motor Carrier Safety Act of 1984.

Section 393.83 Exhaust system location

Exhaust system location requirements have been amended to require an exhaust system, and to prohibit the use of patches or leaking at any point below or forward of the driver/sleeper compartment, or in the case of a bus, forward of any window or door designed to be opened. These changes will increase safety by ensuring that exhaust fumes will not affect the alertness of the driver while driving or affect the driver's health or the health of passengers when being transported.

Section 393.84 Floors

The wording in this section has been changed so that flooring will not be permeated with oil or other substances likely to cause injury to a person using the floor as a traction surface. This has been added to give better protection to personnel and was the original intent of the regulation.

Section 393.87 Flags on projecting loads

This section has been changed to allow projecting loads to extend up to 4 inches beyond the side of the vehicle before flags are required at each point where a lamp is required. This is a relaxation of the present requirement, but is more precise in meaning and therefore more readily enforceable in a uniform manner.

Section 393.91 Buses, aisle seats prohibited

In this section the eight seat capacity exception for buses is increased to 15 passengers, including the driver, to comply with the Motor Carrier Safety Act of 1984. The exception for any bus engaged exclusively in the transportation of agricultural workers has been more clearly worded to state that these buses cannot have more than eight temporary folding seats located in the center aisle.

Subpart J—Frames, Cab and Body Components, Wheels, Steering, and Suspension Systems

As proposed in the NPRM, this subpart has been added to Part 393 because these items are commonly found to be a cause of commercial vehicle accidents and personal injury.

Section 393.201 Frames

This section has been added since most problems encountered in truck/trailer frame failures are the result of improperly installed frame-mounted accessories. Therefore, these regulations are added to prohibit cracked, loose, sagging or broken frames or frame members. This section will also require that all accessories to a frame be bolted or riveted securely and prohibit welds and the drilling of holes to certain areas of the frame. Field repairs to frames are authorized. Trailers having frames will not be allowed to have cracked or broken frames.

Section 393.203 Cab and body components

This section has been added to ensure that cab, doors, hood, and seat are securely fastened and not missing. Components are required to be attached in a secure manner. This addition has been made primarily to protect the driver.

Section 393.205 Wheels

Wheel and tire failures are historically one of the major mechanical defects related to commercial vehicle accidents reported to the FHWA. This final rule prohibits cracks in wheels and rims, elongated (out-of-round) stud or bolt holes and missing or loose nuts or bolts.

Section 393.207 Suspension systems

Accident statistics generated by motor carriers of property filing accident reports with the FHWA show that suspension systems are the fourth ranked mechanical defect causing accidents. The condition of springs, axles, adjustable axles assemblies, torsion bars, and related devices are now included in Part 393.

Section 393.209 Steering Wheel Systems

In 1983, 5.9 percent of the reported mechanical defect related accidents involved steering systems. According to accident reports filed with the FHWA, steering wheel system problems and failures account for the third most serious mechanical defect resulting in accidents of motor carriers. As proposed in the NPRM, regulations concerning free play in steering wheels, defects in the steering column system, universal joints, and power steering systems are included in the final rule.

Effect on State Laws; Preemption

In issuing this final rule, the FHWA has considered the effect of the rule on State laws and regulations pertaining to commercial motor vehicle safety. The FHWA has determined that the requirements contained in this rule are the minimum requirements necessary for

the safe operation of commercial motor vehicles. Many of the changes to Part 393 contained in this final rule were made to provide consistency with existing Federal requirements contained in the FMVSS for the manufacture of commercial motor vehicles. Other changes were made to provide the requirements for parts and accessories that are necessary to conduct the periodic inspection required by section 210 of the Act. Therefore, the FHWA has determined that this final rule does not unnecessarily preempt State laws and regulations pertaining to commercial motor vehicle safety.

Regulatory Impact

The FHWA has determined that this document does not contain a major rule under Executive Order 12291. It is considered to be a significant regulation under the regulatory policies and procedures of the Department of Transportation because of the sizable number of individuals and companies that may be impacted economically by certain rule changes promulgated herein. However, despite the number of individuals and companies that may be affected, it is anticipated that the economic impact of this rule to all individuals will be minimal. It is also anticipated that the benefits and opportunities for benefits to be derived from the rule will offset any costs. A regulatory evaluation/regulatory flexibility analysis has been prepared and is available for review in the public docket.

Under the criteria of the Regulatory Flexibility Act, it is hereby certified that this action will not have a significant economic impact on a substantial number of small entities.

A regulatory information number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross reference this action with the Unified Agenda.

Federalism Impact

In promulgating this rule, the FHWA has considered the President's Executive Order on "Federalism" issued on October 26, 1987. (E.O. 12612, 52 FR 41685) The purpose of the Executive Order is to assure the appropriate division of governmental responsibilities between the national government and the States. This rule implements a specific legislative directive to establish minimum Federal safety standards for commercial motor vehicles in interstate commerce contained in section 206 of the Motor Carrier Safety Act of 1984 (49 U.S.C. 2505). Therefore, it has been determined that the Federalism implications to be considered under the Executive Order do not apply to this rule.

In consideration of the foregoing, the FHWA hereby amends Title 49, Code of Federal Regulations, Chapter III, by revising Part 393 as set forth below.

List of Subjects in 49 CFR Part 393

Highways and roads, Highway safety, Motor carriers, Motor vehicle safety, Parts and accessories.

(Catalog of Federal Domestic Assistance Program Number 20.217, Motor Carrier Safety)

Issued on November 21, 1988.

Robert E. Farris,

Federal Highway Administrator.

PART 393—PARTS AND ACCESSORIES NECESSARY FOR SAFE OPERATION

1. The authority citation for Part 393 is revised to read as follows:

Authority: Sec. 210 of Pub. L. No. 98–554, 98 Stat. 2839 (1984) (49 U.S.C. App. 2505); 49 U.S.C. 3102; 49 CFR 1.48.

2. Subpart A is revised to read as follows:

Subpart A—General

Sec.
393.1 Scope of the rules in this part.
393.3 Additional equipment and accessories.
393.5 Definitions.

Subpart A—General

§ 393.1 Scope of the rules in this part.

Every employer and employee shall comply and be conversant with the requirements and specifications of this part. No employee shall operate a commercial motor vehicle, or cause or permit it to be operated, unless it is equipped in accordance with the requirements and specifications of this part.

§ 393.3 Additional equipment and accessories.

Nothing contained in this subchapter shall be construed to prohibit the use of additional equipment and accessories, not inconsistent with or prohibited by this subchapter, provided such equipment and accessories do not decrease the safety of operation of the motor vehicles on which they are used.

§ 393.5 Definitions.

As used in this part, the following words and terms are construed to mean:

Agricultural Commodity Trailer. A trailer that is designed to transport bulk agricultural commodities in off-road harvesting sites and to a processing plant or storage location, as evidenced by skeletal construction that accommodates harvest containers, a maximum length of 28 feet, and an arrangement of air control lines and reservoirs that minimizes damage in field operations.

Brake. An energy conversion mechanism used to stop, or hold a vehicle stationary.

Brake tubing/hose. Metallic brake tubing, nonmetallic brake tubing and brake hose are conduits or lines used in a brake system to transmit or contain the medium (fluid or vacuum) used to apply the motor vehicle's brakes.

Bus. A vehicle designed to carry more than 15 passengers, including the driver.

Chassis. The load-supporting frame in a truck or trailer, exclusive of any appurtenances which might be added to accommodate cargo.

Clearance Lamp. A lamp used on the front and the rear of a motor vehicle to indicate its overall width and height.

Container Chassis. A semitrailer of skeleton construction limited to a bottom frame, one or more axles, specially built and fitted with locking devices for the transport of cargo containers, so that when the chassis and container are assembled, the units serve the same function as an over the road trailer.

Converter dolly. A motor vehicle consisting of a chassis equipped with one or more axles, a fifth wheel and/or equivalent mechanism, and drawbar, the attachment of which converts a semitrailer to a full trailer.

Curb weight. The weight of a motor vehicle with standard equipment, maximum capacity of fuel, oil, and coolant; and, if so equipped, air conditioning and additional weight of optional engine. Curb weight does not include the driver.

Emergency Brake System. A mechanism designed to stop a vehicle after a single failure occurs in the service brake system of a part designed to contain compressed air or brake fluid or vacuum (except failure of a common valve, manifold brake fluid housing or brake chamber housing).

Fifth Wheel. A device mounted on a truck tractor or similar towing vehicle (e.g., converter dolly) which interfaces with and couples to the upper coupler assembly of a semitrailer.

Fuel Tank Fitting. Any removable device affixed to an opening in the fuel tank with the exception of the filler cap.

Grommet. A device that serves as a support and protection to that which passes through it.

Hazard Warning Signal. Lamps that flash simultaneously to the front and rear, on both the right and left sides of a commercial motor vehicle, to indicate to an approaching driver the presence of a vehicular hazard.

Head Lamps. Lamps used to provide general illumination ahead of a motor vehicle.

Heater. Any device or assembly of devices or appliances used to heat the interior of any motor vehicle. This includes a catalytic heater which must meet the requirements of § 177.834(1) of this title when flammable liquid or gas is transported.

Heavy Hauler Trailer. A trailer with one or more of the following characteristics:

(1) Its brake lines are designed to adapt to separation or extension of the vehicle frame; or

(2) Its body consists only of a platform whose primary cargo-carrying surface is not more than 40 inches above the ground in an unloaded condition, except that it may include sides that are designed to be easily removable and a permanent "front-end structure" as that term is used in Section 393.106 of this title.

Identification Lamps. Lamps used to identify certain types of commercial motor vehicles.

Lamp. A device used to produce artificial light.

License Plate Lamp. A lamp used to illuminate the license plate on the rear of a motor vehicle.

Parking Brake System. A brake system used to hold a vehicle stationary.

Play. Any free movement of components.

Pulpwood Trailer. A trailer that is designed exclusively for harvesting logs or pulpwood and constructed with a skeletal frame with no means for attachment of a solid bed, body, or container, and with an arrangement of air control lines and reservoirs designed to minimize damage in off-road operations.

Rear Extremity. The rearmost point on a vehicle when the vehicle's cargo doors, tailgate or other permanent structure are positioned as they normally are when the vehicle is being driven. Non-structural protrusions such as tail lights, hinges, and latches are deleted from the determination of the rearmost point.

Reflective Material. A material conforming to Federal Specification L–S–300, "Sheeting and Tape, Reflective; Non-exposed Lens, Adhesive Backing," (September 7, 1965) meeting the performance standard in either Table 1 or Table 1A of SAE Standard J594f, "Reflex Reflectors" (January, 1977).

Reflex Reflector. A device which is used on a vehicle to give an indication to an approaching driver by reflected lighted from the lamps on the approaching vehicle.

Saddle-mount. A device, designed and constructed as to be readily demountable, used in driveaway-towaway operations to perform the functions of a conventional fifth wheel:

(1) Upper-half. "Upper-half" of a "saddle-mount" means that part of the device which is securely attached to the towed vehicle and maintains a fixed position relative thereto, but does not include the "king-pin;"

(2) Lower-half. "Lower-half" of a "saddle-mount" means that part of the device which is securely attached to the towing vehicle and maintains a fixed position relative thereto but does not include the "king-pin;" and

(3) King-pin. "King-pin" means that device which is used to connect the "upper-half" to the "lower-half" in such manner as to permit relative movement in a horizontal plane between the towed and towing vehicles.

Service Brake System. A primary brake system used for slowing and stopping a vehicle.

Side Extremities. The outermost point on the sides of the vehicle. Nonstructural protrusions such as tail lights, hinges, and latches are excluded from the determination of the outermost point.

Side Marker Lamp (Intermediate). A lamp shown to the side of a trailer to indicate the approximate middle of a trailer 30 feet or more in length.

Side Marker Lamps. Lamps used on each side of a trailer to indicate its overall length.

Steering Wheel Lash. The condition in which the steering wheel may be turned through some part of a revolution without associated movement of the front wheels.

Stop Lamps. Lamps shown to the rear of a motor vehicle to indicate that the service brake system is engaged.

Tail Lamps. Lamps used to designate the rear of a motor vehicle.

Turn Signals. Lamps used to indicate a change in direction by emitting a flashing light on the side of a motor vehicle towards which a turn will be made.

Upper Coupler Assembly. A structure consisting of an upper coupler plate, king-pin and supporting framework which interfaces with and couples to a fifth wheel.

Upper Coupler Plate. A plate structure through which the king-pin neck and collar extend. The bottom surface of the plate contacts the fifth wheel when coupled.

3. Subpart B is amended by revising § 393.11 and removing §§ 393.12, 393.13, 393.14, 393.15, 393.16 and 393.18 as follows:

Subpart B—Lighting Devices, Reflectors, and Electrical Equipment

§ 393.11 Lighting devices and reflectors.

The following Table 1 sets forth the required color, position, and required lighting devices by type of commercial motor vehicle. Diagrams illustrating the locations of lighting devices and reflectors, by type and size of commercial motor vehicle, are shown immediately following Table 1. All lighting devices on motor vehicles placed in operation after (the effective date of this regulation) must meet the requirements of 49 CFR 571.108 in effect at the time of manufacture of the vehicle. Motor vehicles placed in operation on or before (the effective date of this regulation) must meet either the requirements of this Subchapter or Part 571 of this title in effect at the time of manufacture.

TABLE 1.—REQUIRED COMMERCIAL VEHICLE LIGHTING EQUIPMENT

Item on the vehicle	Quantity	Color	Location	Position	Height above road surface in inches measured from the center of the lamp at curb weight	Required lighting devices/vehicles
Headlamps	2 At Least	White	Front	On the front at the same height, an equal number at each side of the vertical centerline as far apart as practicable.	Not less than 22 nor more than 54.	A, B, C

TABLE 1.—REQUIRED COMMERCIAL VEHICLE LIGHTING EQUIPMENT—Continued

Item on the vehicle	Quantity	Color	Location	Position	Height above road surface in inches measured from the center of the lamp at curb weight	Required lighting devices/vehicles
Turn Signal (Front) See Footnotes #2 & 12.	2	Amber	At or Near Front.	One on each side of the vertical centerline at the same height and as far apart as practicable.	Not less than 15 nor more than 83.	A, B, C
Identification Lamp (Front) Footnote #1.	3	Amber	Front	Mounted on the vertical centerline of the vehicle or the vertical centerline of the cab where different from the centerline of the vehicle.	All three on same level as close as practicable to the top of the vehicle with lamp centers spaced not less than 6 inches or more than 12 inches apart.	B, C
Tail Lamp See Footnotes #5 & 11.	2	Red	Rear	One lamp each side of the vertical centerline at the same height and as far apart as practicable.	Both on the same level between 15 and 72.	A, B, C, D, E, F, G, H
Stop Lamp See Footnotes #5 & 13.	2	Red	Rear	One lamp each side of the vertical centerline at the same height and as far apart as practicable.	Both on the same level between 15 and 72.	A, B, C, D, E, F, G
Clearance Lamps See Footnotes #9, 10, & 15.	2	Amber	One on each side of front.	One on each side of the vertical centerline to indicate width.	Both on same level as high as practicable.	B, C, D, G, H
	2	Red	One on each side of rear.	One on each side of the vertical centerline to indicate overall width.	Both on same level as high as practicable.	B, D, G, H
Side Marker Lamp, Intermediate	2	Amber	One on each side.	At or near midpoint between front and rear side marker lamps, if over 30' in length.	Not less than 15	A, B, D, F, G
Reflex Reflector Intermediate (Side).	2	Amber	One on each side.	At or near midpoint between front and rear side reflectors if over 30' in length.	Between 15 and 60	A, B, D, F, G
Reflex Reflector (Rear) See Footnotes #5, 6, & 8.	2	Red	Rear	One on each side of vertical centerline, as far apart as practicable.	Both on same level, between 15 and 60.	A, B, C, D, E, F, G
Reflex Reflector (Rear Side) Footnote #4.	2	Red	One on each side (rear).	As far to the rear as practicable	Both on same level, between 15 and 60.	A, B, D, F, G
Reflex Reflector (Front Side)	2	Amber	One on each side (front).	As far to the front as practicable	Between 15 and 60	A, B, C, D, F, G
License Plate Lamp Rear See Footnote #11.	1	White	At rear license plate.	To illuminate the license plate from the top or sides.	No requirements	A, B, C, D, F, G
Side Marker Lamp (Front)	2	Amber	One on each side.	As far to the front as practicable	Not less than 15	A, B, C, D, F
Side Marker Lamp (Rear) See Footnotes #4 & 8.	2	Red	One on each side.	As far to the rear as practicable	Not less than 15 and on the rear of trailer, not more than 60.	A, B, D, F, G
Turn Signal (Rear) See Footnotes #5 & 12.	2	Amber or Red.	Rear	One lamp on each side of the vertical centerline as far apart as practicable.	Both on the same level, between 15 and 83.	A, B, C, D, E, F, G
Identification Lamp (Rear) See Footnotes # 3, 7 & 15.	3	Red	Rear	One as close as practicable to vertical centerline. One on each side with lamp centers spaced not less than 6" or more than 12" apart.	All three on same level as close as practicable to the top of the vehicle.	B, D, G
Vehicular Hazard Warning Flashing Lamps See Footnote # 12.	2	Amber	Front	One lamp on each side of vertical centerline as far apart as practicable.	Both on same level, between 15 and 83.	A, B, C, D, E, F, G
	2	Amber or Red.	Rear			
Backup Lamp See Footnote # 14.	1	White	Rear	Rear	No requirement	A, B, C
Parking Lamp	2	Amber or white.	Front	One lamp on each side of vertical centerline as far apart as practicable.	Both on same level, between 15 and 72.	A

* Lighting Required per Type of Commercial Vehicle as Shown **Last Column of Table.**

A. Small buses and trucks less than 80 inches in overall width.
B. Buses and trucks 80 inches or more in overall width.
C. Truck Tractors.
D. Large semitrailers and full trailers 80 inches or more in overall width except converter dollies.
E. Converter dolly.
F. Small semitrailers and full trailers less than 80 inches in overall width.
G. Pole Trailers.
H. Projecting loads.
Lamps and reflectors may be combined as permitted by Paragraphs 393.22 and S4.4 of 49 CFR 571.108, Equipment combinations.

Footnote—1

Identification lamps may be mounted on the vertical centerline of the cab where different from the centerline of the vehicle, except where the cab is not more than 42 inches wide at the front roofline, then a single lamp at the center of the cab shall be deemed to comply with the requirements for identification lamps. No part of the identification lamps or their mountings may extend below the top of the vehicle windshield.

Footnote—2

Unless the turn signals on the front are so constructed (double-faced) and located as to be visible to passing drivers, two turn signals are required on the rear of the truck tractor, one at each side as far apart as practicable.

Footnote—3

The identification lamps need not be visible or lighted if obscured by a vehicle in the same combination.

Footnote—4

Any semitrailer or full trailer vehicles manufactured on and after March 1, 1979, shall be equipped with rear side-marker lamps at a height of not less than 15 inches (381 mm) nor more than 60 inches (1524 mm) above the road surface, as measured from the center of the lamp on the vehicle at curb weight. The rear side marker lamps shall be visible in the vehicle's rearview mirrors when the trailer is tracking straight.

Footnote—5

For purposes of these regulations, each converter dolly shall be equipped with one stop lamp, one tail lamp, and two reflectors on the rear at each side when towed singly by another vehicle. Each converter dolly shall be equipped with turn signals at the rear if the converter dolly obscures the turn signals at the rear of the towing vehicle when towed singly by another vehicle.

Footnote—6

Pole trailers will have two reflectors, one on each side, placed to indicate extreme width of the trailer.

Footnote—7

Pole trailers may have three identification lamps mounted on the vertical centerline of the rear of the cab of the truck tractor drawing the pole trailer, and higher than the load being transported, in lieu of the three identification lamps mounted on the rear vertical centerline of the trailer.

Footnote—8

Pole trailers shall have on the rearmost support for the load, one combination marker lamp or two single lamps showing amber to the front and red to the rear and side, mounted on each side to indicate maximum width of the pole trailer; and one red reflector on each side of the rearmost support for the load.

Footnote—9

Any motor vehicle transporting a load which extends more than 4 inches beyond the width of the motor vehicle, or having projections beyond the rear of such vehicles, shall be equipped with the following lamps in addition to other required lamps, have the loads marked

Loads projecting more than 4 inches beyond sides of motor vehicles:

(1) The foremost edge of the projecting load at its outermost extremity shall be marked with an amber lamp visible from the front and both sides.

(2) The rearmost edge of the projecting load at its outermost extremity shall be marked with a red lamp visible from the rear and side.

(3) If any portion of the projecting load extends beyond both the foremost and rearmost edge, it shall be marked with an amber lamp visible from the front, both sides, and rear.

(4) If the protecting load does not measure more than 3 feet from front to rear, it shall be marked with an amber lamp visible from the front, both sides, and rear, except that if the projection is located at or near the rear it shall be marked by a red lamp visible from front, side, and rear.

Footnote—10

Projections beyond rear of motor vehicles. Motor vehicles transporting loads which extend more than 4 feet beyond the rear of the motor vehicle, or which have these tailboards or tailgates extending more than 4 feet beyond the body, shall have projections marked as follows:

(1) On each side of the projecting load, one red lamp, visible from the side, located so as to indicate maximum overhang.

(2) On the rear of the projecting load, two red lamps, visible from the rear, one at each side; and two red reflectors visible from the rear, one at each side, located so as to indicate maximum width.

Footnote—11

To be illuminated when tractor headlamps are illuminated.

Footnote—12

Every bus, truck, and truck tractor shall be equipped with a signaling system that, in addition to signaling turning movements, shall have a switch or combination of switches that will cause the two front turn signals and the two rear signals to flash simultaneously as a vehicular traffic signal warning, required by § 392–22(a). The system shall be capable of flashing simultaneously with the ignition of the vehicle on or off.

Footnote—13

To be actuated upon application of service brakes.

Footnote—14

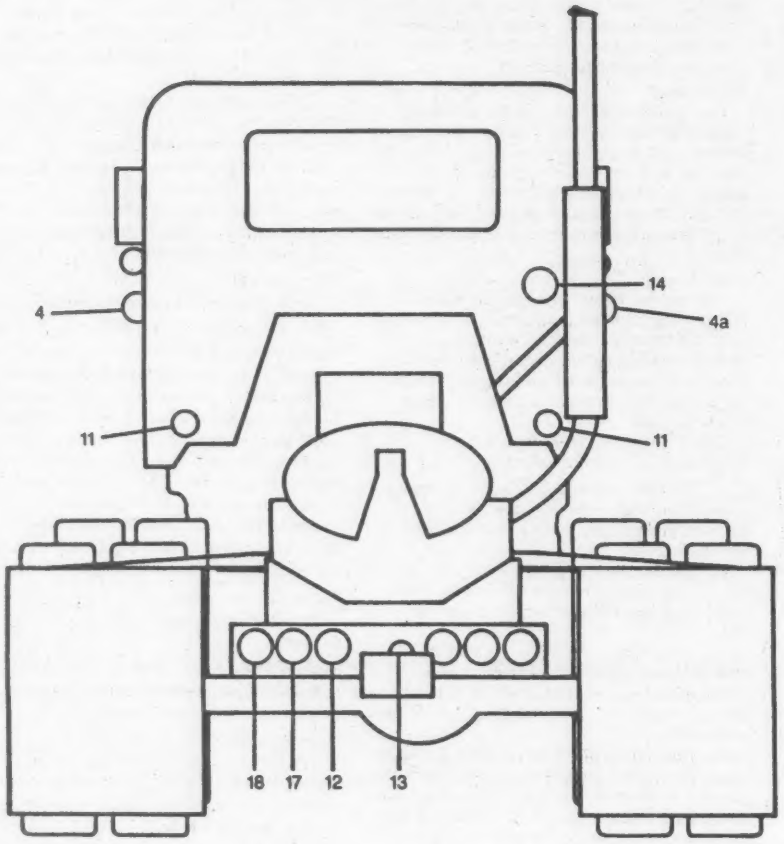
Backup lamp required to operate when bus, truck, or truck tractor is in reverse.

Footnote—15

When the rear identification lamps are mounted at the extreme height of a vehicle, rear clearance lamps need not meet the requirement that they be located as close as practicable to the top of the vehicle.

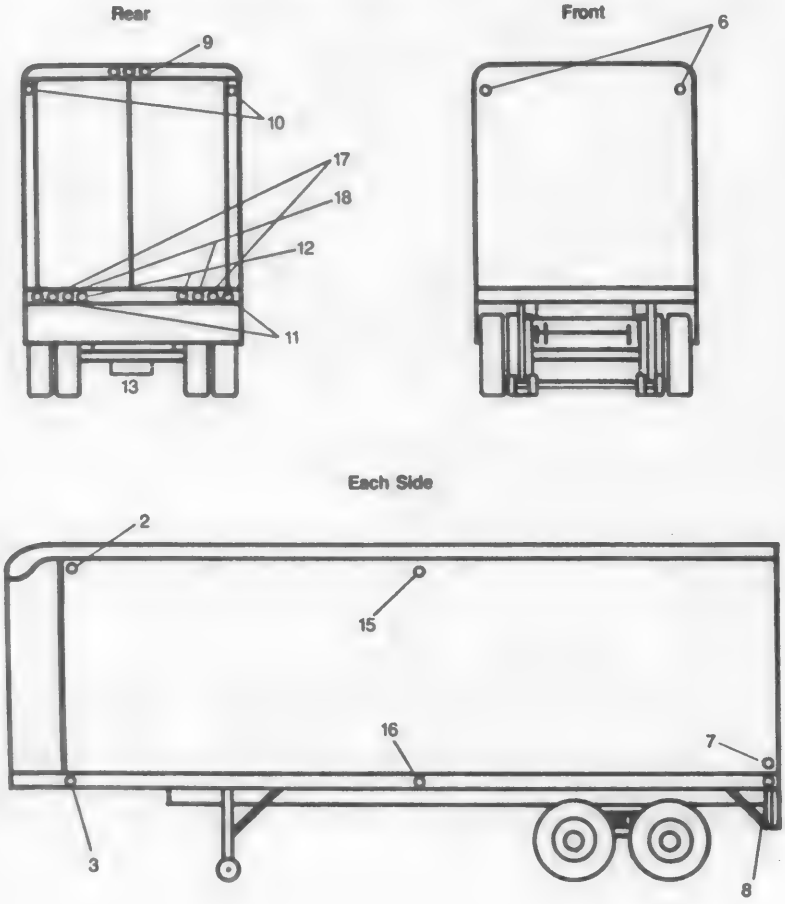
BILLING CODE 4910-22-M

Truck Tractor
Rear View

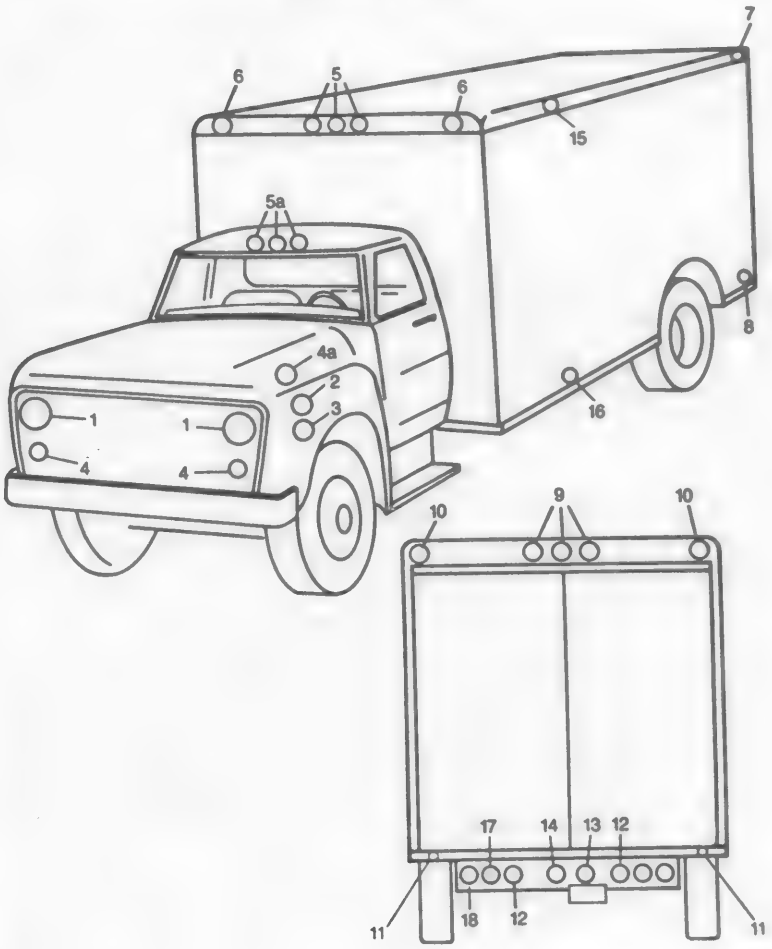


Truck Tractor
Front & Side View

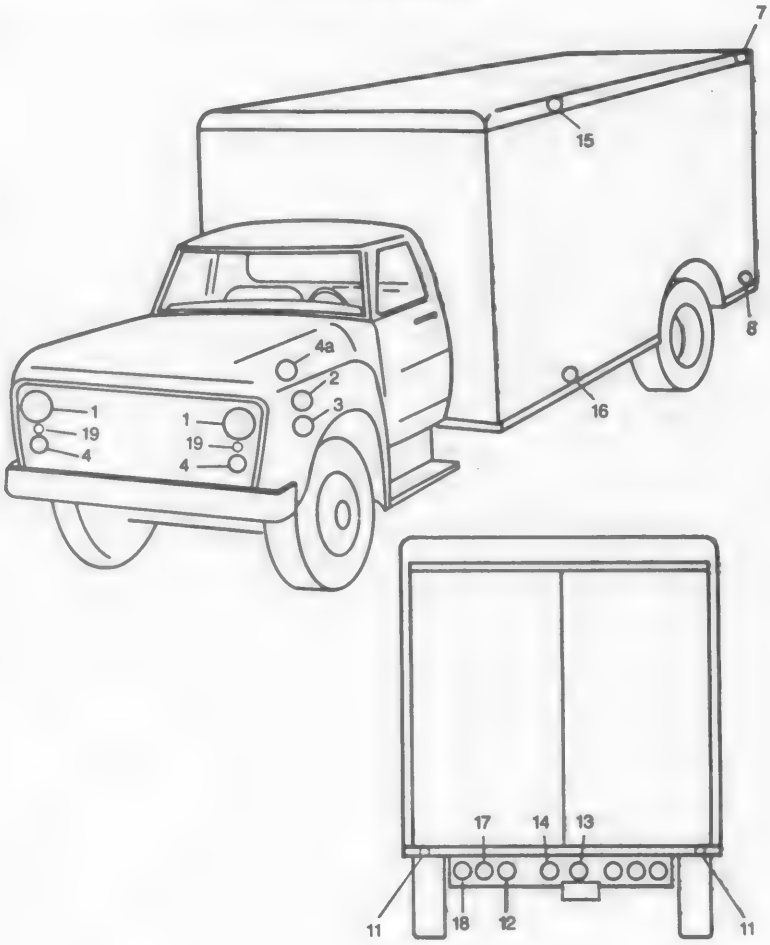
Large Trailers



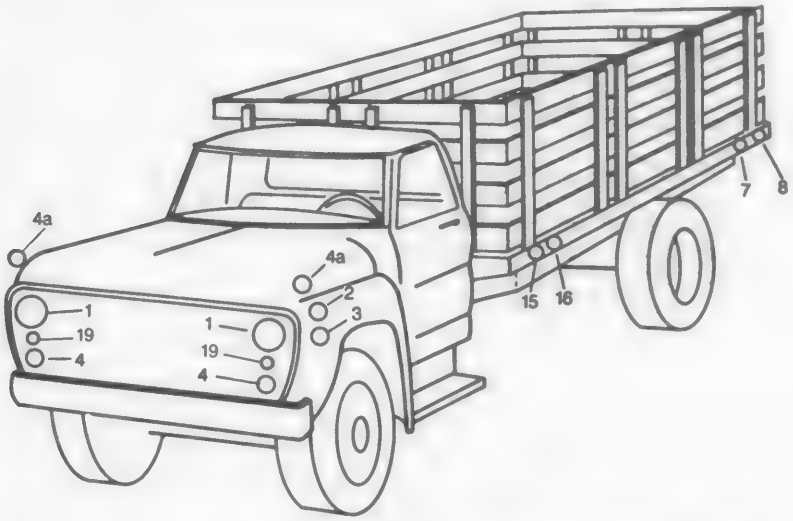
Over 80 Inches

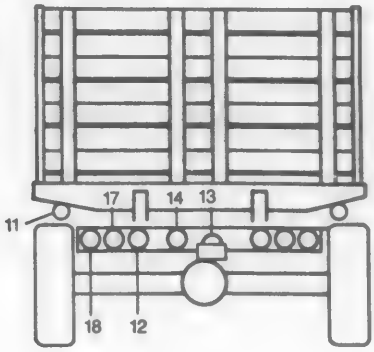


Under 80 Inches

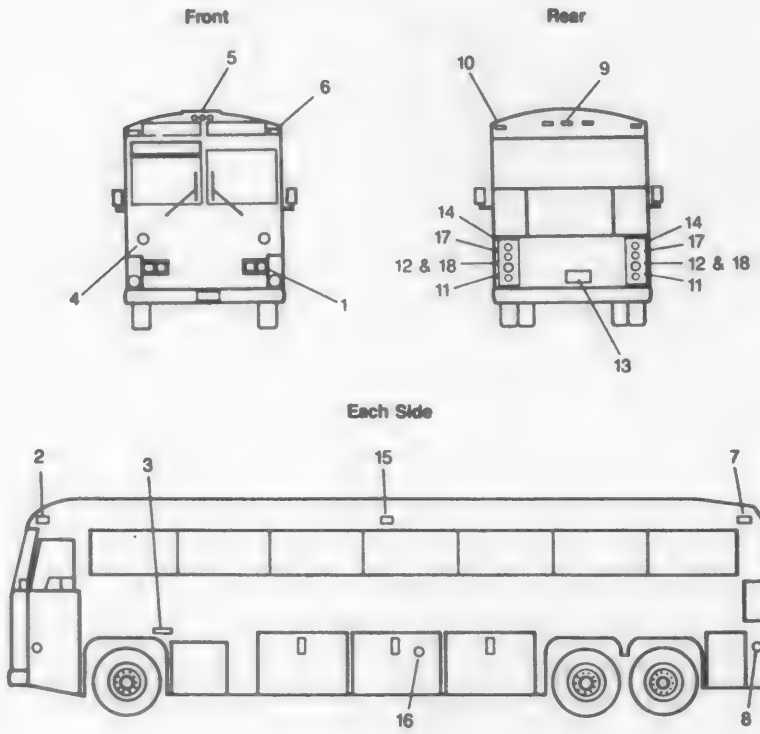


Under 80 Inches

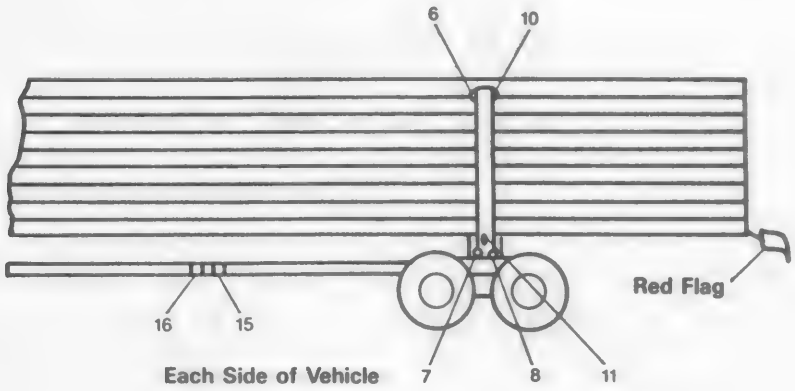


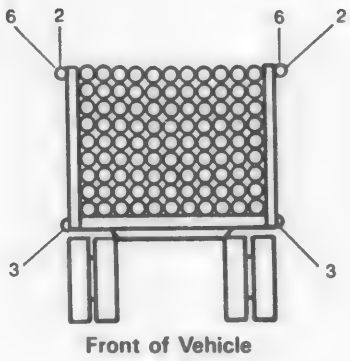


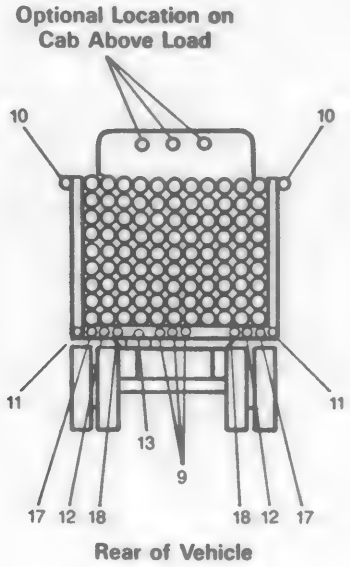
Large Bus



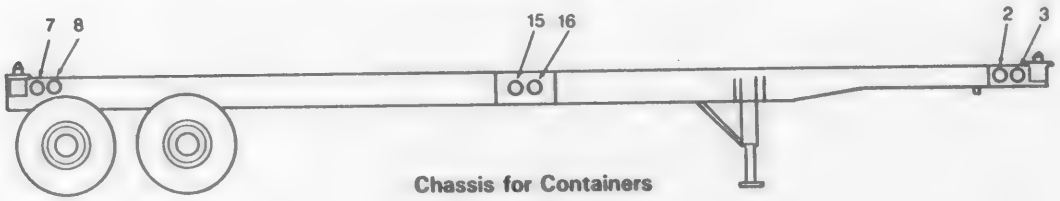
Pole Trailers — All Vehicle Widths



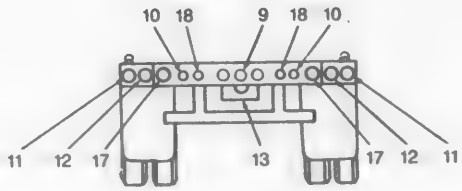




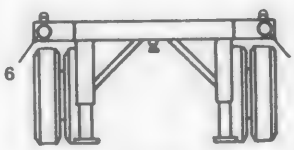
Container Chassis



Chassis for Containers

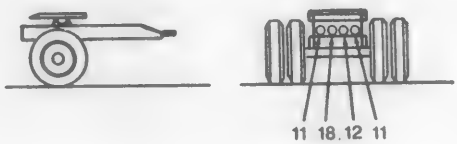


Rear



Front

Converter Dolly



BILLING CODE 4910-22-C

Legend (Used in Illustrations)

1. Headlamps (2)-White (4 optional)
2. Side-marker lamps. Front (2)-Amber
3. Side reflectors. Front (2)-Amber
4. Turn-signal lamps. Front (2)-Amber
4a. Turn-signal lamps. Front (2)-Amber (Optional location)
5. Identification lamps. Front (3)-Amber
5a. Identification lamps. Front (3)-Amber (Optional location)
6. Clearance lamps. Front (2)-Amber
7. Side-marker lamps. Rear (2)-Red
8. Side-reflectors. Rear (2)-Red
9. Identification lamps. Rear (3)-Red
10. Clearance lamps. Rear (2)-Red
11. Reflectors Rear (2)-Red
12. Stop lamps. Rear (2)-Red
13. License plate lamp. Rear (1)-White
14. Backup lamp. Rear (1)-White (location optional provided optional requirements are met)
15. Side-marker lamps. Intermediate (2)-Amber (if vehicle is 30' or more overall length)
16. Side reflectors. Intermediate (2)-Amber (if vehicle is 30' or more overall length)
17. Turn signal lamps. Rear (2)-Amber or Red
18. Tail lamps. Rear (2)-Red
19. Parking lamps. Front 2-Amber or White

§ 393.12 [Removed]

§ 393.13 [Removed]

§ 393.14 [Removed]

§ 393.15 [Removed]

§ 393.16 [Removed]

§ 393.18 [Removed]

* * * * *

4. Section 393.19 is revised to read as follows:

§ 393.19 Requirements for turn signaling systems.

(a) Every bus, truck, or truck tractor shall be equipped with a signaling system that in addition to signaling turning movements shall have a switch or combination of switches that will cause the two front turn signals and the two rear turn signals to flash simultaneously as a vehicular traffic hazard warning as required by § 392.22 with the ignition on or off.

(b) Every semitrailer and full trailer shall be equipped so as to have the two rear turn signals to flash simultaneously with the two front turn signals of the towing vehicle as a vehicular traffic hazard warning as required by § 392.22(a).

5. The footnote to § 393.24(c) is amended by revising paragraph (a), removing paragraphs (b) and (c) and adding a new paragraph (b) to read as follows:

§ 393.24 Requirements for head lamps and auxiliary road lighting lamps.

* * * * *

1 * * *

(a) As found in the 1985 edition of the SAE Handbook with respect to parts and accessories other than lighting devices and reflectors.

(b) When reference is made in these regulations to SAE Standards or SAE Recommended Practices, they shall be as found in the 1985 edition of the SAE Handbook:

(1) With respect to parts and accessories other than lighting devices and reflectors:

(2) Lighting devices and reflectors on motor vehicles manufactured on and after March 7, 1990, shall conform to FMVSS 571.108 (49 CFR 571.108) in effect at the time of manufacture of the vehicle. Should a conflict arise between FMVSS 571.108 and a SAE Standard, FMVSS 571.108 will prevail.

* * * * *

§ 393.25 [Amended]

6. Section 393.25 is amended by substituting the date "1985" for "1959" in the introductory text of paragraph (c) and paragraphs (c)(2) and (3); amending the introductory text of paragraph (d) to remove the year "1959" preceding the words "SAE Standards"; by removing paragraph (e); by redesignating paragraphs (f) and (g) to (e) and (f), respectively; and correcting the reference in the last sentence of redesignated paragraph (f), Stop lamp operation, to read as "paragraph (e) of this section."

7. Section 393.26 is revised by removing paragraph (d) and redesignating paragraph (e) as (d). Paragraphs (b) and (c) are revised to read as follows:

§ 393.26 Requirements for reflectors.

* * * * *

(b) *Specifications.* All required reflectors except those installed on vehicles tendered for transportation in driveaway and towaway operations shall comply with FMVSS 571.108 (49 CFR 571.108) in effect at the time the vehicle was manufactured or the current FMVSS 571.108 requirements.

(c) *Certification and markings.* All reflectors required to conform to the specifications in paragraph (b) shall be certified by the manufacturer or supplier that they do so conform, by marking with the manufacturer's or supplier's name or trade name and the letters "SAE-A". The marking in each case shall be visible when the reflector is in place on the vehicle.

* * * * *

8. Section 393.27 is revised to read as follows:

§ 393.27 Wiring specifications.

(a) Wiring for both low voltage (tension) and high voltage (tension) circuits shall be constructed and installed so as to meet design requirements. Wiring shall meet or exceed, both mechanically and electrically, the following SAE Standards as found in the 1985 edition of the SAE Handbook:

(1) Commercial vehicle engine ignition systems-SAE J557-High Tension Ignition Cable.

(2) Commercial vehicle battery cable-SAE J1127-Jan 80-Battery Cable.

(3) Other commercial vehicle wiring-SAE J1128-Low Tension Primary Cable.

(b) The source of power and the electrical wiring shall be of such size and characteristics as to provide the necessary voltage as the design requires to comply with FMVSS 571.108.

(c) Lamps shall be properly grounded.

Note: This shall not prohibit the use of the frame or other metal parts of a motor vehicle as a return ground system provided truck-tractor semitrailer/full trailer combinations are electrically connected.

9. Section 393.28 is revised to read as follows:

§ 393.28 Wiring to be protected.

(a) The wiring shall—

(1) Be so installed that connections are protected from weather, abrasion, road splash, grease, oil, fuel and chafing;

(2) Be grouped together, when possible, and protected by nonconductive tape, braid, or other covering capable of withstanding severe abrasion or shall be protected by being enclosed in a sheath or tube;

(3) Be properly supported in a manner to prevent chafing;

(4) Not be so located as to be likely to be charred, overheated, or enmeshed in moving parts;

(5) Not have terminals or splices located above the fuel tank except for the fuel sender wiring and terminal; and

(6) Be protected when passing through holes in metal by a grommet, or other means, or the wiring shall be encased in a protective covering.

(b) The complete wiring system including lamps, junction boxes, receptacle boxes, conduit and fittings must be weather resistant.

(c) Harness connections shall be accomplished by a mechanical means.

10. In § 393.31 the first sentence shall be numbered (a) and the second sentence is designated as paragraph (b) and revised to read as follows:

§ 393.31 Overload protective devices.

* * * * *

(b) Trucks, truck-tractors, and buses meeting the definition of a commercial motor vehicle and manufactured after June 30, 1953 shall have protective devices for electrical circuits arranged so that:

(1) the headlamp circuit or circuits shall not be affected by a short circuit in any other lighting circuits on the motor vehicle; or

(2) the protective device shall be an automatic reset overload circuit breaker if the headlight circuit is protected in common with other circuits.

11. In Subpart C, § 393.41(a) is revised to read as follows:

§ 393.41 Parking brake system.

(a) Every commercial motor vehicle manufactured on and after (one year after (the effective date of this rulemaking)), except an agricultural commodity trailer, converter dolly, heavy hauler or pulpwood trailer, shall at all times be equipped with a parking brake system adequate to hold the vehicle or combination under any condition of loading as required by FMVSS 571.121. An agricultural commodity trailer, heavy hauler or pulpwood trailer shall carry sufficient chocking blocks to prevent movement when parked.

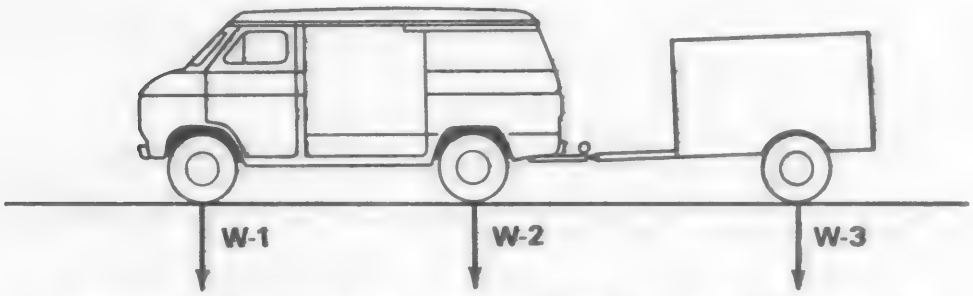
* * * * *

§ 393.42 [Amended]

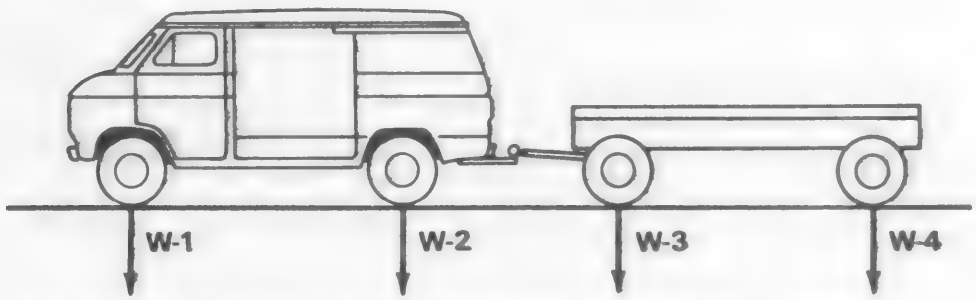
12. Section 393.42 is amended to add at the end of the section an illustration for brake requirements for light trailers as follows:

BILLING CODE 4910-33-M

(Diagrams to illustrate § 393.42 for brake requirements for light trailers.)



(Semitrailer or 2-wheel pole trailer of 3,000 pounds gross weight or less must be equipped with brakes if W-3 is greater than 40 percent of the sum of W-1 and W-2.)



(Full trailer or 4-wheel pole trailer of 3,000 pounds gross weight or less must be equipped with brakes if the sum of W-3 and W-4 is greater than 40 percent of the sum of W-1 and W-2.)

BILLING CODE 4910-22-C

BEST COPY AVAILABLE

13. Section 393.44 is revised to read as follows:

§ 393.44 Front brake lines, protection.

On every bus, if equipped with air brakes, the braking system shall be so constructed that in the event any brake line to any of the front wheels is broken, the driver can apply the brakes on the rear wheels despite such breakage. The means used to apply the brakes may be located forward of the driver's seat as long as it can be operated manually by the driver when the driver is properly restrained by any seat belt assembly provided for use. Every bus shall meet this requirement or comply with the regulations in effect at the time of its manufacture.

14. Section 393.45 is amended by revising paragraphs (b), (c), and (d) to read as follows:

§ 393.45 Brake tubing and hose, adequacy.

* * * * *

(b) *Special requirements for metallic brake tubing, nonmetallic brake tubing, coiled nonmetallic brake tubing and brake hose.*

(1) Metallic brake tubing, nonmetallic brake tubing, coiled nonmetallic brake tubing, and brake hose installed on a commercial motor vehicle on and after March 7, 1989, must meet or exceed one of the following specifications set forth in the SAE Handbook, 1985 edition:

(i) Metallic Air Brake Tubing—SAE Recommended Practice J1149—Metallic Air Brake System Tubing and Pipe—July 76.

(ii) Nonmetallic Air Brake Tubing—SAE Recommended Practice J844—Nonmetallic Air Brake System Type B—OCT 80.

(iii) Air Brake Hose—SAE Recommended Practice J1402—Automotive Air Brake Hose and Hose Assemblies—JUN 85.

(iv) Hydraulic Brake Hose—SAE Recommended Practice J1401 Road Vehicle-Hydraulic Brake Hose Assemblies for Use with Non-Petroleum Base Hydraulic Fluid JUN 85.

(v) Vacuum Brake Hose—SAE Recommended Practice J1403 Vacuum Brake Hose JUN 85.

(2) Except as provided in paragraph (c) of this section, brake hose and brake tubing installed on a motor vehicle before March 7, 1989, must conform to 49 CFR 393.45 effective October 31, 1983.

(c) *Nonmetallic brake tubing.* Coiled nonmetallic brake tubing may be used for connections between towed and towing vehicles or between the frame of a towed vehicle and the unsprung subframe of an adjustable axle of that vehicle if—

(1) The coiled tubing has a straight segment (pigtail) at each end that is at least 2 inches in length and is encased in a spring guard or similar device which prevents the tubing from kinking at the fitting at which it is attached to the vehicle; and

(2) The spring guard or similar device has at least 2 inches of closed coils or similar surface at its interface with the fitting and extends at least 1½ inches into the coiled segment of the tubing from its straight segment.

(d) *Brake tubing and brake hose, uses.* Metallic and nonmetallic brake tubing is intended for use in areas of the brake system where relative movement in the line is not anticipated. Brake hose and coiled nonmetallic brake tubing is intended for use in the brake system where substantial relative movement in the line is anticipated or the hose/coiled nonmetallic brake tubing is exposed to potential tension or impact such as between the frame and axle in a conventional type suspension system (axle attached to frame by suspension system). Nonmetallic brake tubing may be used through an articulation point provided movement is less than 4.5 degrees in a vertical plane, and 7.4 degrees in a transverse horizontal plane.

15. Section 393.46 is amended by adding a new paragraph (f) as follows:

§ 393.46 Brake tubing and hose connections.

* * * * *

(f) Splices in tubing if installed on a vehicle after March 7, 1989, must use fittings that meet the requirements of SAE Standard J512–OCT 80 Automotive Tube Fittings or for air brake systems SAE J246—March 81 Spherical and Flanged Sleeve (Compression) Tube Fittings as found in the SAE Handbook 1985 edition.

16. Section 393.50(a) is revised and paragraph (c) is removed as follows:

§ 393.50 Reservoirs required.

(a) *General.* Every commercial motor vehicle using air or vacuum for breaking shall be equipped with reserve capacity or a reservoir sufficient to ensure a full service brake application with the engine stopped without depleting the air pressure or vacuum below 70 percent of that pressure or degree of vacuum indicated by the gauge immediately before the brake application is made. For purposes of this section, a full service brake application is considered to be made when the service brake pedal is pushed to the limit of its travel.

* * * * *

§ 393.51 [Amended]

17. Section 393.51 is amended by removing paragraph (g) and in the introductory text of paragraphs (c) and (d), and in paragraph (e) by removing the words "Except as provided in paragraph (g) of this section, a" and substituting "A".

18. Section 393.67(f) is revised to read as follows:

§ 393.67 Liquid fuel tanks.

* * * * *

(f) *Certification and markings.* Each liquid fuel tank shall be legibly and permanently marked by the manufacturer with the following minimum information:

(1) The month and year of manufacture,

(2) The manufacturer's name on tanks manufactured on and after July 1, 1988, and means of identifying the facility at which the tank was manufactured, and

(3) A certificate that it conforms to the rules in this section applicable to the tank. The certificate must be in the form set forth in either of the following:

(i) If a tank conforms to all rules in this section pertaining to side-mounted fuel tanks: "Meets all FHWA side-mounted tank requirements."

(ii) If a tank conforms to all rules in this section pertaining to tanks which are not side-mounted fuel tanks: "Meets all FHWA requirements for non-side-mounted fuel tanks."

(iii) The form of certificate specified in paragraph (f)(3) (i) or (ii) of this section may be used on a liquid fuel tank manufactured before July 11, 1973, but it is not mandatory for liquid fuel tanks manufactured before March 7, 1989. The form of certification manufactured on or before March 7, 1989, must meet the requirements in effect at the time of manufacture.

§ 393.69 [Amended]

19. Section 393.69(a) introductory text is amended by revising the address for the National Fire Protection Association to read as follows: "National Fire Protection Association, Battery March Park, Quincy, MA 02269,".

20. Section 393.71 is amended by revising paragraphs (h)(7) and (h)(9) and removing and reserving paragraph (i), as follows:

§ 393.71 Coupling devices and towing methods, driveaway-towaway operations.

* * * * *

(h) * * *

(7) *Tracking.* The tow-bar shall be so designed, constructed, maintained, and mounted as to cause the towed vehicle to follow substantially in the path of the

towing vehicle. Tow-bars of such design on in our condition as to permit the towed vehicle to deviate more than 3 inches to either side of the path of a towing vehicle moving in a straight line as measured from the center of the towing vehicle are prohibited.

* * * * *

(9) *Marking tow-bars.* Every tow-bar acquired and used in driveaway-towaway operations by a motor carrier shall be plainly marked with the following certification of the manufacturer thereof (or words of equivalent meaning):

This tow-bar complies with the requirements of the Federal Highway Administration for (maximum gross weight for which tow-bar is manufactured) vehicles.
Allowable Maximum Gross Weight ———
Manufactured ———
(month and year)
by ———
(name of manufacturer)

Tow-bar certification manufactured before the effective date of this regulation must meet requirements in effect at the time of manufacture.

(i) [Reserved]

* * * * *

21. In Subpart G, § 393.75 is amended by revising paragraphs (a) and (f) to read as follows and by removing Table I, "Tire Load Limits at Various Cold Inflation Pressures," and redesignating Table II to read "Table I—Inflation Pressure Measurement Correction for Heat":

§ 393.75 Tires.

(a) No motor vehicle shall be operated on any tire that (1) has body ply or belt material exposed through the tread or sidewall, (2) has any tread or sidewall separation, (3) is flat or has an audible leak, or (4) has a cut to the extent that the ply or belt material is exposed.

* * * * *

(f) Tire load rating [1]. (1) General rule: No motor vehicle shall be operated with tires that carry a greater weight than that specified for the tires in any of the publications of the standardizing bodies listed in FMVSS 571.119 (49 CFR 571.119) and marked on the sidewall of the tire unless:

(i) The vehicle is being operated under the terms of a special permit issued by the State, and

(ii) The vehicle is being operated at a reduced speed that is appropriate to compensate for tire loading in excess of the manufacturer's normal rated capacity.

(2) Tire pressure. No motor vehicle shall be operated on a tire which has a cold inflation pressure less than that specified for the load being carried.

(3) If the inflation pressure of the tire has been increased by heat because of the recent operation of the vehicle, the cold inflation pressure shall be estimated by subtracting the inflation buildup factor shown in Table I from the measured inflation pressure.

22. In Subpart G, § 393.76 is amended by revising paragraph (e)(2)(iv) and removing paragraph (e)(2)(v) as follows:

§ 393.76 Sleeper berth.

* * * * *

(e) * * *

(2) * * *

* * * * *

(iv) A mattress filled with a fluid and of sufficient thickness when filled to prevent "bottoming-out" when occupied while the vehicle is in motion.

* * * * *

23. Section 393.77 is amended by removing paragraph (a), redesignating paragraphs (b) and (c) as (a) and (b), respectively, and revising paragraphs (b)(5) and (b)(11) as follows:

§ 393.77 Heaters.

* * * * *

(b) * * *

(5) *Operating controls to be protected.* On every bus designed to transport more than 15 passengers, including the driver, means shall be provided to prevent unauthorized persons from tampering with the operating controls. Such means may include remote control by the driver; installation of controls at inaccessible places; control of adjustments by key or keys; enclosure of controls in a locked space, locking of controls, or other means of accomplishing this purpose.

* * * * *

(11) *Heater fuel tank location.* Every bus designed to transport more than 15 passengers, including the driver, with heaters of the combustion type shall have fuel tanks therefor located outside of and lower than the passenger space. When necessary, suitable protection shall be afforded by shielding or other means against the puncturing of any such tank or its connections by flying stones or other objects.

* * * * *

24. Section 393.83 is revised to read as follows:

§ 393.83 Exhaust systems.

(a) Every motor vehicle having a device (other than as part of its cargo) capable of expelling harmful combustion fumes shall have a system to direct the discharge of such fumes. No part shall be located where its location would likely result in burning, charring, or damaging the electrical wiring, the fuel supply, or any combustible part of the motor vehicle.

(b) No exhaust system shall discharge to the atmosphere at a location immediately below the fuel tank or the fuel tank filler pipe.

(c) The exhaust system of a bus powered by a gasoline engine shall discharge to the atmosphere at or within 6 inches forward of the rearmost part of the bus.

(d) The exhaust system of a bus using fuels other than gasoline shall discharge to the atmosphere either:

(1) At or within 15 inches forward of the rearmost part of the vehicle; or

(2) To the rear of all doors or windows designed to be open, except windows designed to be opened solely as emergency exits.

(e) The exhaust system of every truck and truck tractor shall discharge to the atmosphere at a location to the rear of the cab or, if the exhaust projects above the cab, at a location near the rear of the cab.

(f) No part of the exhaust system shall be temporarily repaired with wrap or patches.

(g) No part of the exhaust system shall leak or discharge at a point forward of or directly below the driver/sleeper compartment. The exhaust outlet may discharge above the cab/sleeper roofline.

(h) The exhaust system must be securely fastened to the vehicle.

(i) Exhaust systems may use hangers which permit required movement due to expansion and contraction caused by heat of the exhaust and relative motion between engine and chassis of a vehicle.

25. Section 393.84 is revised to read as follows:

§ 393.84 Floors.

The flooring in all motor vehicles shall be substantially constructed, free of unnecessary holes and openings, and shall be maintained so as to minimize the entrance of fumes, exhaust gases, or fire. Floors shall not be permeated with oil or other substances likely to cause injury to persons using the floor as a traction surface.

26. Section 393.87 is revised to read as follows:

§ 393.87 Flags on projecting loads.

Any motor vehicle having a load or vehicle component which extends beyond the sides more than 4 inches or

[1] The load and cold inflation pressure imposed on the rim and wheel must not exceed the rim and wheel manufacturer's recommendations even though the tire may be approved for a higher load or inflation. Rims and wheels may be identified (stamped) with a maximum load and maximum cold inflation rating.

more than 4 feet beyond the rear shall have the extremities of the load marked with a red flag, not less than 12 inches square, at each point where a lamp is required by Table 1, § 393.11.

§ 393.89 [Amended]

27. In § 393.89, delete the following: ", except buses having a seating capacity of eight or less persons,".

28. Section 393.91 is revised to read as follows:

§ 393.91 Buses, aisle seats prohibited.

No bus shall be equipped with aisle seats unless such seats are so designed and installed as to automatically fold and leave a clear aisle when they are unoccupied. No bus shall be operated if any seat therein is not securely fastened to the vehicle.

29. A new Subpart J is added to Part 393 to read as follows:

Subpart J—Frames, Cab and Body Components, Wheels, Steering, and Suspension Systems

Sec.
393.201 Frames.
393.203 Cab and body components
393.205 Wheels.
393.207 Suspension systems.
393.209 Steering wheel systems.

Subpart J—Frames, Cab and Body Components, Wheels, Steering, and Suspension Systems

§ 393.201 Frames.

(a) The frame of every bus, truck, and truck tractor shall not be cracked, loose, sagging or broken.

(b) Bolts or brackets securing the cab or the body of the vehicle to the frame must not be loose, broken, or missing.

(c) The frame rail flanges between the axles shall not be bent, cut or notched, except as specified by the manufacturer.

(d) All accessories mounted to the truck tractor frame must be bolted or riveted.

(e) No holes shall be drilled in the top or bottom rail flanges, except as specified by the manufacturer.

(f) Field repairs are allowed.

§ 393.203 Cab and body components.

(a) The cab compartment doors or door parts used as an entrance or exist shall not be missing or broken. Doors shall not sag so that they cannot be properly opened or closed. No door shall be wired shut or otherwise secured in the closed position so that it cannot be readily opened. **Exception:** When the vehicle is loaded with pipe or bar stock that blocks the door and the cab has a roof exit.

(b) Bolts or brackets securing the cab or the body of the vehicle to the frame shall not be loose, broken, or missing.

(c) The hood must be securely fastened.

(d) All seats must be securely mounted.

(e) The front bumper must not be missing, loosely attached, or protruding beyond the confines of the vehicle so as to create a hazard.

§ 393.205 Wheels.

(a) Wheels and rims shall not be cracked or broken.

(b) Stud or bolt holes on the wheels shall shall not be elongated (out of round).

(c) Nuts or bolts shall not be missing or loose.

§ 393.207 Suspension systems.

(a) Axles. No axle positioning part shall be cracked, broken, loose or missing. All axles must be in proper alignment.

(b) Adjustable axles. Adjustable axle assemblies shall not have locking pins missing or disengaged.

(c) Leaf springs. No leaf spring shall be cracked, broken, or missing nor shifted out of position.

(d) Coil springs. No coil spring shall be cracked or broken.

(e) Torsion bar. No torsion bar or torsion bar suspension shall be cracked or broken.

(f) Air Suspensions. The air pressure regulator valve shall not allow air into the suspension system until at least 55 psi is in the braking system. The vehicle shall be level (not tilting to the left or right). Air leakage shall not be greater than 3 psi in a 5-minute time period when the vehicle's air pressure gauge shows normal operating pressure.

§ 393.209 Steering wheel systems.

(a) The steering wheel shall be secured and must not have any spokes cracked through or missing.

(b) The steering wheel lash shall not exceed the following parameters:

Steering wheel diameter	Manual steering system	Power steering system
16" or less	2"+	4½"+
18"	2¼"+	4¾"+
20"	2½"+	5¼"+
22"	2¾"+	5¾"+

(c) Steering column. The steering column must be securely fastened.

(d) Steering system. Universal joints shall not be worn, faulty or repaired by welding. The steering gear box shall not have loose or missing mounting bolts or cracks in the gear box or mounting brackets. The pitman arm on the steering gear output shaft shall not be loose. Steering wheels shall turn freely through the limit of travel in both directions.

(e) Power steering systems. All components of the power system must be in operating condition. No parts shall be loose or broken. Belts shall not be frayed, cracked or slipping. The system shall not leak. The power steering system shall have sufficient fluid in the reservoir.

[FR Doc. 88-27514 Filed 12-6-88; 8:45 am]
BILLING CODE 4910-22-M

DEPARTMENT OF TRANSPORTATION

49 CFR Part 396

[FHWA Docket No. MC-113; Notice No. 87-02]

RIN 2125-AB34

Inspection, Repair and Maintenance

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Final rule.

SUMMARY: The FHWA is amending Part 396, Inspection, Repair and Maintenance of the Federal Motor Carrier Safety Regulations (FMCSRs) to require that commercial motor vehicles operated in interstate or foreign commerce pass an inspection at least annually. The amendments permit the motor carrier operating the vehicle to meet the inspection requirements through periodic inspection programs administered by the States, or by a self-inspection, a roadside inspection or an inspection performed by a commercial garage or similar commercial business, so long as the inspection complies with Federal standards or on State inspection standards that are as effective as the Federal standards. The Federal standards are based on Part 393, Parts and Accessories Necessary for Safe Operation and are similar to the North American Uniform Driver-Vehicle Inspection Procedure (NAUD-VIP). This action is being taken to implement section 210 of the Motor Carrier Safety Act of 1984 (the Act) and to improve the safe operation of commercial motor vehicles by requiring that such vehicles be inspected for compliance with Federal standards.

EFFECTIVE DATE: March 7, 1990.

FOR FURTHER INFORMATION CONTACT: Mr. Thomas P. Kozlowski, Office of Motor Carrier Standards, (202) 366-2981, or Mr. Paul L. Brennan, Office of the Chief Counsel, (202) 366-1353, Federal Highway Administration, 400 Seventh Street, SW., Washington, DC 20590.

Office hours are from 7:45 a.m. to 4:15 p.m. ET, Monday through Friday.

SUPPLEMENTARY INFORMATION: On October 11, 1984, Congress passed the Motor Carrier Safety Act of 1984 (Pub. L. 98–554, 98 Stat. 2829). The Act was signed into law by the President on October 30, 1984.

This supplementary information contains background information, on overview of the periodic inspection requirements for commercial motor vehicles, a section-by-section analysis of the rule, and a discussion of the FHWA's activities to monitor the effectiveness of this final rule. A discussion of the comments received in response to a notice of proposed rulemaking (NPRM) in the **Federal Register** on February 26, 1987 (52 FR 5913), proposing revisions to Part 396 is included in the section-by-section analysis.

Background

Section 210 of the Act requires that the Secretary of Transportation establish standards for annual or more frequent inspection of commercial motor vehicles and for the retention by motor carriers of records of such inspections. These standards would also apply to foreign motor carriers operating in the United States. Foreign motor carriers were covered under the NPRM; this final rule clarifies their status under certain sections of the rule.

On January 10, 1985, the FHWA published an advance notice of proposed rulemaking (ANPRM) at 50 FR 1245 seeking public comment concerning possible modifications to Parts 393 and 396 of the FMCSRs. Approximately 50 comments were received concerning these potential changes. Due to the complexity of these two areas, the FHWA established a separate docket for Part 393 (i.e., OMC Docket No. MC–127). The final rule for Part 393 is found elsewhere in today's **Federal Register.** While the dockets for Parts 393 and 396 were separated, the FHWA has reviewed both parts together because of the close relationship of their subjects.

The February 26, 1987, NPRM proposed an annual inspection and permitted self-inspections by motor carriers with five or more vehicles. The comment period for the NPRM was extended to June 29, 1987.

The FHWA received a total of 66 comments to Docket No. MC–113. The responses included:

24 from truck and bus industry trade organizations,
6 from individual motor carriers,
12 from government agencies,
11 from individual drivers,
9 from manufacturers, and
4 requests for extension of comment period.

Overall, the commenters were in favor of a periodic inspection. Over half of those expressing an opinion favored an annual, rather than a more frequent, inspection.

Overview of Inspection Requirements

Presently, §§ 392.7, 396.11 and 396.13 of the FMCSRs require the driver to perform a pre-trip and post-trip inspection of the vehicle driven that day. The driver is required to evaluate the vehicle's components and note any defects or deficiencies. The defects must be repaired prior to the vehicle's further use. In addition, the motor carrier is required by § 396.3 to develop and implement a systematic inspection program, including prescribed maintenance records, for the vehicles it operates. Furthermore, §§ 393.1 and 396.3(a)(1) require that the parts and accessories specified in Part 393, as well as any additional parts and accessories as allowed by § 393.2, shall be in safe and proper operating condition at all times.

The FMCSRs allow for inspections of vehicles in operation, i.e., roadside inspections, by certain FHWA personnel or special agents of the FHWA. Many of the current roadside inspections are being performed by State personnel and funded through grants from the FHWA under the Motor Carrier Safety Assistance Program (MCSAP). In addition to these federally supported inspection programs, States perform vehicle safety inspections as part of random roadside inspection programs and periodic inspections. Currently, 21 States have some form of a periodic inspection for commercial motor vehicles.

The fundamental requirement being added by this final rule is that a motor carrier, including a foreign carrier, will be required to ensure that all commercial motor vehicles operating in the United States in interstate or foreign commerce under the motor carrier's control are inspected and meet the vehicle component standards at least once every 12 months. Furthermore, this inspection is to be based on Federal inspection standards, also being added by this rule, or on State inspection standards as effective as the Federal standards. The section which addresses this requirement is § 396.17, Periodic inspection.

A commercial motor vehicle meeting the requirements of a State periodic inspection program will satisfy the inspection requirement of this rule, unless the State's program is not as effective as the Federal requirements. The FHWA requests that States with inspection programs provide FHWA with information on their programs and an assessment of whether the State program is as effective as this rule. The FHWA believes that relying on ongoing inspections programs administered by the States will eliminate any unnecessary duplication of inspections while maintaining a high level of confidence that an effective annual inspection is being performed.

This rule does not inhibit State's prerogatives in administering their programs. The FHWA agrees that the vehicle parts (e.g., brakes, tires, suspension, etc.) included for review by the State-developed and endorsed NAUD–VIP are essential to safe vehicle operations. Thus, the FHWA believes that any vehicle inspection program should look at the NAUD–VIP listed parts. The FHWA recognizes that States have a variety of periodic inspection programs. The FHWA believes that States with these various programs or States intending to implement such programs to meet this rule, do not have to adopt this rule verbatim to have a program as "effective" or "comparable" to this rule. States have flexibility to implement the procedure in this rule or to administer alternative methods to determine whether vehicles are in safe operating condition.

This rule does not affect situations where a vehicle may be subject to more than one State administered inspection because the vehicle is registered in more than one State that has a periodic inspection program. The requirements that the vehicle be inspected through a State administered program will be met if one of the programs meets the requirements of this rule. State authorized inspection programs are discussed in § 396.23 of this final rule.

If a vehicle is not subject to a mandatory State inspection program, or if the FHWA determines that the State's program is not as effective as this rule, then the requirement for a periodic inspection may be met by one of several methods. Section 396.17(d) permits the motor carrier to self-inspect the commercial motor vehicles under its control. Motor carriers may also meet the requirements of the Federal periodic inspection through systematic inspection, maintenance, and repair programs, if those programs meet the requirements of the Federal standards in this rule. Section 396.17(e) permits the motor carrier to have the inspection performed by a qualified commercial business, such as a commercial garage, fleet leasing company, or truck stop. A

random roadside or periodic inspection conducted by a State or provincial government may also satisfy the annual inspection requirement, as provided in § 396.17(f).

Foreign motor carriers may use the periodic inspection requirement of the foreign jurisdiction in which its vehicles are registered provided that the carrier determines that the inspection program is at least as effective as this rule. This provides a greater assurance of a valid inspection while not placing an additional burden on these carriers. If those jurisdictions do not have an acceptable periodic inspection requirement, motor carriers must meet the requirements of Appendix G through self-inspection, use of a commercial garage, or acceptable roadside inspection, or through a State inspection program that is as effective as the Federal standards in this rule.

The periodic inspection requirement of this rule is intended to complement and be consistent with existing inspection programs. In those States with an acceptable periodic inspection requirement, motor carriers whose vehicles are required under State law to be inspected through the State's inspection program must continue to use that mechanism to meet the requirement of the rule.

Current State periodic inspection programs include a variety of inspection procedures, including the allowance for self-inspection by motor carriers if they meet certain requirements (such as motor carrier size). Some state programs allow self-inspection for only certain types of vehicles. The FHWA fully endorses these types of inspection procedures and if the specific program is as effective as this rule, such programs will meet the requirements of this rule.

Nothing precludes or is intended to imply that vehicles should only be checked once a year. To the contrary, the FHWA continues to encourage motor carriers to establish preventive maintenance programs whereby vehicles are inspected, repaired and maintained on a systematic schedule. As noted in § 396.3(a), motor carriers shall systematically inspect, repair and maintain all vehicles subject to its control. If a motor carrier chooses to meet the periodic inspection requirement through its systematic inspection program, then all vehicle components identified in Appendix G must meet the requirements of Appendix G at least every 12 months. If certain components are inspected at different times (i.e., a complete vehicle inspection is not performed at one time), then the inspection report (§ 396.21) must identify the date that each component passed the inspection. All persons performing these inspections must be identified and must meet the requirements of § 396.19, Inspector qualifications.

The FHWA is establishing a 1-year transition period, as proposed in the NPRM, during which compliance with the periodic inspection requirement will be recommended but not required. Comments on this provision were negligible. The FHWA believes a 12-month period will be needed to receive an assessment of and information on periodic inspection programs in the States and to determine if the State inspection programs are as effective as the standards established under this rule.

The FHWA intends to request that each State which has a periodic commercial motor vehicle inspection program submit a self-assessment and description of its program. The FHWA will then confirm or determine if the State program is as effective as that required under this rule. If a positive determination is made, without condition, all commercial motor vehicles passing the State's periodic inspection program will have met the requirements of this final rule. If a State's periodic inspection program is determined to be not as effective as the Federal program and the State wishes to modify its program to be as "effective" or comparable to this rule, the FHWA will work with the State to identify where modifications are required to make the State program acceptable. If the State decides not to change its program, or if a State does not have a periodic inspection program, motor carriers will need to comply with the annual inspection requirements through programs in other States or by relying on the other alternate inspection options in the rule. The basis for review of the State inspection programs is contained in a subsequent section of the Preamble entitled "FHWA Activities to Monitor the Effectiveness of this Rule." It is FHWA's intention to rely heavily on the States' initial assessments in making the determination of the effectiveness of each State's program. Section 210(b) of the Act clearly assigns the responsibility to the Secretary to make the final determination on the effectiveness of a State's program. Nothing in this rule implies that the FHWA intends to preempt a State from conducting periodic inspection of vehicles, or that a State's inspection program does not improve highway safety. The FHWA believes that any inspection of a vehicle, even under programs not as effective as this rule, should contribute to the removal of unsafe vehicles from the highway.

The FHWA will not require foreign jurisdictions to submit detailed descriptions of their inspection programs although they are encouraged to do so voluntarily. It is the responsibility of the carrier to assure that the program of the foreign jurisdiction in which its vehicles are registered is as effective as that required under this rule, and, if not, to meet the FHWA standard by one of the alternative methods established under this rule. The FHWA will use a post-inspection evaluation of carriers as a means to monitor the foreign carrier's compliance with the inspection requirements of this rule.

Section-by-Section Analysis

Section 396.15 Driveaway-towaway operations and inspections

The FHWA proposed to expand the driveaway-towaway exemption to include an exemption from the periodic inspection requirements of this rule. There were no comments in opposition; therefore, the exemption as proposed is included in this final rule.

Section 396.17 Periodic inspection

The FHWA proposed in the NPRM that the periodic inspection be performed at least once during the preceding 365 days. Several commenters indicated that a day-specific requirement was too restrictive and inconsistent with most inspection program periods. The FHWA agrees and has modified the time period to be once every 12 months. The FHWA believes that this is consistent with the congressional intent of the Act that there be an "annual" inspection.

The NPRM proposed that self-inspection by motor carriers be allowed. It further proposed that no governmental approval be required before self-inspection can be conducted. The majority of the commenters favored allowing self-inspection with some form of government approval. They were concerned that, without government oversight, some motor carriers might falsify inspection records or otherwise fail to comply with the inspection requirements. Three commenters were strongly opposed to any type of self-inspection. They contend that the annual inspection required by the Act should be performed by parties other than the owner or operator of the vehicle. Those in favor of the NPRM proposal contend that there would be an unduly burdensome paperwork requirement if government pre-approval is required.

The self-inspection option is consistent with the congressional intent, provided that adequate safeguards are in place to ensure that the requirements are followed. The Senate Committee on Commerce, Science, and Transportation stated "Many motor carriers currently have excellent self-inspection programs. The Committee expects and intends that the inspection requirement could be met by such programs." (S. Rep. No. 98–424, 98 Cong., 2d Sess. 15–16 (1984)). The requirements for documentation of the inspection and the inspector qualifications will provide the necessary proof for enforcement personnel to take corrective action if a motor carrier is found to violate these requirements.

In addition, the FHWA believes that a periodic inspection will improve safety but is not the only method to ensure that vehicle components are operating safely. The FHWA will continue to support roadside inspections as a primary means to monitor the condition of commercial motor vehicles and to remove unsafe vehicles from the road. The FHWA will also work for full implementation of SAFETYNET (a system whereby State roadside inspection results are telecommunicated to the FHWA for inclusion in the FHWA's individual motor carrier files). SAFETYNET and Motor Carrier Management Information System will be used to monitor the condition of vehicles on the road for individual motor carriers and to evaluate the effectiveness of the various motor carrier safety program elements. While commenters to the docket raised legitimate issues regarding the self-inspection option, the FHWA believes that there are compelling arguments to allow such an option at this time.

The FHWA has decided that the self-inspection option will not be available if the motor vehicle is required under State law to be inspected in the State's periodic motor vehicle inspection (PMVI) program, unless the State program provides for self-inspection. Commercial motor vehicles participating in State PMVI programs would meet the Federal standards through meeting the State inspection procedures and standards if they are determined to be compatible with or as effective as this rule. If a State's PMVI program allows for self-inspection, then the motor carrier must follow that State's requirements for self-inspection. The FHWA would prefer to have all States handle the periodic inspection of commercial motor vehicles, but the statute does not mandate such inspection programs. Regardless of whether a State's inspection program is as effective as the Federal standards, vehicles subject to that State's laws must continue to abide by them. This means that in States with an inspection program that is not as effective as the Federal standards, a vehicle would have to meet the State requirements as well as the Federal standards. Most State programs require certification or licensing of inspectors along with minimum requirements for the inspection facilities. The FHWA has noted that most State PMVI programs have some element of self-inspection of commercial vehicles by motor carriers. These self-inspection programs have some type of pre-certification or post-inspection audit. The FHWA has decided to use a post-inspection evaluation as the means to monitor the self-inspection program element. With a significant level of FHWA Motor Carrier Safety personnel already devoted to conducting safety reviews and compliance reviews, a review of a motor carrier's self-inspection program elements (inspector qualifications, documentation, etc.) is possible. A review and pre-certification of self-inspection programs prior to use of such an option is not possible given the relatively small number of Federal field personnel, the large number of motor carriers, and the desire of States and provinces, as evidenced by a recent vote of the Commercial Vehicle Safety Alliance, to devote resources to roadside inspection and not motor carrier site visits.

In a recent report, Feasibility of Required Periodic Inspection of Trucks (October 1987), the Maryland Department of Transportation (MDOT) conducted a literature review of state periodic motor vehicle inspection (PMVI) program studies. The MDOT concluded that most of the studies were inconclusive or conflicting when assessing the effectiveness of PMVI programs. In a 1985 report entitled "Cost Effectiveness of Periodic Motor Vehicle Inspection (PMVI): A Review of the Literature" (NHTSA, DOT HS 806750, January 1985), NHTSA found that "* * * not one of them [41 studies] was able to provide definitive evidence on the question of PMVI cost effectiveness." In light of these findings, there does not appear to be evidence which supports PMVI programs over random roadside inspection programs or the FHWA's Safety Review and Compliance Review Activities.

For these same reasons, it is also not practical for the FHWA to require that independent commercial garages be certified prior to their use by motor carriers for the vehicle inspection. Since the FHWA has direct authority over motor carriers and can penalize motor carriers who violate the periodic inspection requirements, the FHWA will review motor carrier files to determine if the motor carrier has asssurance that the independent commercial station meets the inspection qualifications. A later section of the Preamble, "FHWA Activities to Monitor the Effectiveness of this Rule," addresses the process which the FHWA will use to monitor the periodic inspection requirements, particularly the self-inspection element, and to make changes to the final rule if warranted.

The NPRM proposed that self-inspection be permitted only for those motor carriers with five or more vehicles. Many comments were received on this issue as well as on how to count the vehicles under a motor carrier's control. Comments were equally split on the threshold question—some indicating that the figure should be higher and others recommending that all motor carriers, including owner-operators, be permitted to self-inspect as long as the person performing the inspection meets certain minimum requirements.

With regard to the question of how to determine the number of commercial motor vehicles a motor carrier has, the FHWA received a variety of suggestions. Some commenters suggested that either a mileage-based or a gross receipts-based criterion be established, instead of a minimum number of vehicles. Others were concerned that, within a 1-year period, the size of a motor carrier's fleet varies and that to establish a fleet size criterion that is equitable and verifiable would be very difficult. Other commenters took issue with the FHWA's premise that motor carriers with larger fleets have better maintenance practices.

Based on the comments and the lack of any economic or safety data being submitted to support establishing a threshold level, using any criterion, the FHWA has deleted the fleet size requirement. All motor carriers will be permitted to self-inspect, provided the State in which the vehicle is registered does not have a periodic inspection program that the FHWA has determined is as effective as this rule (unless the State program allows self-inspection) and provided the carrier complies with the inspector qualifications and inspection standards requirements of §§ 396.17 and 396.19.

It should be noted that it is the responsibility of the motor carrier to meet the requirements of this rule. The existence or absence of a State

inspection program does not relieve the motor carrier of responsibility to ensure that the commercial motor vehicle under the carrier's control pass an inspection at least once every 12 months. The penalty provisions provided by 49 U.S.C. 521(b) apply to the motor carrier.

Commercial motor vehicles inspected through an acceptable State inspection program are required to follow the procedures of such programs. Commercial motor vehicles inspected through other means that do not pass the inspection (i.e., one or more components do not meet the standards contained in Appendix G) are considered not to have met the requirements of this rule even if the defective component was repaired immediately after the commercial motor vehicle left the site of the inspection. If the commercial motor vehicle was repaired at the site to the inspector's satisfaction and it is so recorded on the inspection report, then the FHWA will consider the commercial motor vehicle to have passed the inspection. A commercial motor vehicle which has not passed an inspection in accordance with the requirements of this part within the previous 12 months cannot be used.

If defective or missing vehicle components are noted during the inspection that are contained in Part 393 but not in Appendix G to the subchapter, the vehicle is considered to have met the requirements of this part. However, the defective or missing components must be repaired in accordance with § 396.9(d) (if the defective and/or missing component was noted during a State, provincial, or Federal roadside inspection) or §§ 393.1 and 396.3(a)(1) (if the defective and/or missing components were noted during an inspection performed by the motor carrier). Section 396.9(d) requires that the defective and/or missing component be repaired/replaced and that an FHWA field office be so notified within 15 days.

In keeping with the congressional intent that the requirement for a periodic inspection not be burdensome, the FHWA, in the ANPRM, requested comments on whether or not the Commercial Vehicle Safety Alliance (CVSA)/Essential Element Examination (roadside) type inspection should be considered as effective as an annual (periodic) or more frequent inspection system. As noted in the NPRM, the commenters pointed out the differences between random critical element roadside inspections and what they perceived as the intent of § 210 of the Act. They indicated that a random roadside inspection was basically concerned with ensuring that the vehicle did not pose an imminent danger on the roadway. The focus is on checking the more critical components such as brakes, headlights, brake lights, and steering and suspension systems. In contrast, a periodic inspection should be more concerned with the general overall safety condition of the vehicle, including those parts, which if defective, worn, or missing do not pose an immediate danger but nevertheless should be corrected as soon as possible. Therefore, the rule requires that roadside inspections meet the minimum standards contained in Appendix G in order to meet the periodic inspection requirements.

Section 396.19 Inspector qualifications

The FHWA believes that the qualification of the person performing the inspection is a very critical aspect of any inspection program. Comments on proposed § 396.19, Inspector qualifications, strongly supported this belief. Most commenters supported the proposed inspector qualification except the requirement that the combined training and experience total 2 years. Those commenting on this issue believed that 1 year of experience/training would be adequate. The FHWA agrees and has revised the qualifications to reflect this.

Persons who have successfully completed a Federal or State-sponsored training program or course or have a State or provincial certificate which qualifies them to perform commercial motor vehicle safety inspections would not have to meet the 1-year requirement. The FHWA believes that a person with such credentials is capable of performing an inspection without the need for a year of experience, provided he/she meets the other qualifications. Even when a State's PMVI is found not to be as effective as the Federal standards, if the individual conducting the inspection meets the minimum Federal inspector qualification requirements, then that person may certify that the vehicle being inspected meets the Federal standards as well as the State requirements.

The FHWA is deleting the requirement that the person performing the inspection "can read and write the English language to the extent necessary to understand the inspection criteria and prepare the required documentation." The FHWA believes that it is essential that the inspector understand the inspection criteria and methods and can complete the inspection report. However, the FHWA believes that the language requirement is unnecessary since the person performing the inspection need only be able to converse with the motor carrier. The ability to read and write English does not indicate a person's proficiency in identifying vehicle defects. Also, the FHWA is unaware of any potential safety problems which the elimination of such a requirement may cause. However, if the person performing the inspection is also a driver, as is the case for owner-operators, who comes in contact with law enforcement officers or the general public, the person must be able to meet the English language requirements of 49 CFR 391.11(b)(2).

The FHWA did not proposed specific minimum standards for inspection facilities; however, comments were requested on this issue. No comments were received. It is the motor carrier's and the inspector's responsibility to ensure that the proper tools and equipment are available and properly used to perform the inspection. Section 396.19 reflects this determination.

As with the self-inspection provisions, several commenters indicated that some type of certification or pre-authorization program needs to be established for inspectors. The general sentiment expressed is that allowing a motor carrier to ensure that the person performing the inspection (in the case of self-inspections) is qualified, without any precheck, is unenforceable and lacks the necessary quality control. The FHWA disagrees. The requirement that the motor carrier maintain documentation of the inspector's qualification (in the case of self-inspection) as well as the identification of the inspector on the inspection report will provide sufficient information to assist the FHWA in enforcing the inspector qualifications requirement during safety and/or compliance reviews. The FHWA also believes that it would be administratively impractical to establish a Federal inspector qualification program. For States and provinces with an acceptable periodic inspection program and that allow self-inspections, the State and provincial inspector qualification requirements would be used as long as they were comparable to the Federal standards. As discussed later in the Preamble, the FHWA will be evaluating the adequacy of self-inspections versus State periodic or roadside inspections. Based on the results of those studies the FHWA may reevaluate the provision for self-inspection in this rule.

Section 396.21 Recordkeeping

The comments on the NPRM proposal echoed those received on the ANPRM with regard to the need for some type of

evidence of the periodic inspection to be carried or placed on the vehicle. However, the commenters were almost unanimously opposed to the NPRM proposal that the vehicle be marked with the letters "PI" followed by the inspection date. The FHWA has decided that, as suggested by some commenters, a copy of the inspection report is to be carried in the vehicle.

Several other commenters suggested that decals be used. The FHWA does not believe this to be a viable alternative since it would be virtually impossible to manage the distribution of the decals. A situation could arise where a vehicle could pass an inspection but not have a decal because the carrier did not receive a sufficient supply. The FHWA believes that the requirement for evidence of an inspection needs to be flexible so that it will be applicable to different inspection scenarios. It must also provide adequate documentation to ensure enforcement officials that the requirements are being met. The FHWA is unaware of any inspection procedure where some form of written proof is not prepared which includes at least the information proposed. The documentation may be in a variety of formats, so long as the required information, specified in § 396.21, is included. The FHWA will encourage States, during random roadside inspections, to check for evidence of the periodic inspection. The proposal that the original or a copy of the inspection report for vehicles under the motor carrier's control for 30 days or more be retained by the motor carrier for 1 year from the date of the inspection is adopted in this final rule.

The statement in § 396.21(a)(7) that an inspector failing to comply with this section would be subject to the penalties provided in 49 U.S.C. 521(b) was deleted. The FHWA believes that the statement could cause confusion, inasmuch as the FHWA has jurisdiction only over motor carriers and their employees and has no authority to penalize inspectors who may be independent contractors of a motor carrier. Section 396.17(h) of the final rule states that motor carriers are subject to the penalty provisions of 49 U.S.C. 521(b) for failure to ensure that the annual inspection is properly performed.

Section 396.23 Equivalent to periodic inspection

As proposed in § 396.23, Equivalent to periodic inspection, the periodic inspection requirement of this rule must be met through a State periodic inspection program for those vehicles required under State law to be inspected through the State's inspection program, if the FHWA determines that the State program is as effective as this rule (§ 396.23(b)). For those vehicles not subject to a mandatory State periodic inspection or where the State program has *not* been determined by the FHWA to be as effective as that established under this final rule, the motor carrier may self-inspect or accept an inspection performed by someone else (§ 396.23(a)). The inspection performed by someone else may include, but is not limited to, inspections performed as part of State and provincial-sponsored random roadside inspections or inspections performed at commercial garages or dealerships. Only two comments were received on this Section, and they were supportive of the proposal. In any case, the inspection must meet the standards set forth in § 396.17 to be accepted as periodic inspections under this rule. Motor carriers do not have to maintain documentation of inspector qualifications for those inspections performed either as part of a periodic inspection program or at the roadside as part of a random roadside inspection program.

Appendix G Minimum Periodic Inspection Standards

The majority of the comments received in response to the NPRM addressed the specific technical inspection standards proposed in § 396.25. For example, several commenters suggested different allowable depths for tire treads. After thoroughly considering all the comments, the FHWA compared the proposed § 396.25 to the revised specifications contained in 49 CFR Part 393 (published elsewhere in today's **Federal Register**). The FHWA also compared the proposed § 396.25 with the vehicle out-of-service criteria (October 1986) adopted by the CVSA and the vehicle portion of the North American Uniform Driver-Vehicle Inspection Procedure (NAUD-VIP). Note that the NAUD-VIP is the recently changed name for the FHWA National Uniform Driver-Vehicle Inspection Procedure (NUD-VIP). Since all three inspection standards (CVSA, Appendix G, and NUD-VIP) have their bases in the specifications contained in the current 49 CFR Part 393, all were quite similar.

In reaching a decision on the inspection standards, the FHWA reviewed the proposed standards, the congressional intent (discussed earlier), comments to the proposal, as well as an analysis of existing inspection practices and requirements. This review led the FHWA to conclude that a new set of inspection standards, as proposed in the NPRM, would add extra burden and unnecessary complexity to the overall motor carrier safety inspection procedure. The NPRM, in effect, required almost every element of a vehicle to be inspected regardless of that item's propensity to affect safety of operation of the vehicle. The NPRM also required some disassembly of certain parts during the inspection. One commenter pointed out that disassembly/reassembly of parts could lead to premature failure of some parts. The FHWA agrees. The current inspection standards associated with the CVSA or NUD-VIP focus on random roadside inspections and examine certain key components of a vehicle to detect those defects most often identified as causing or contributing to the severity of commercial motor vehicle accidents. The CVSA or NUD-VIP standards, by their very nature, do not require disassembly of parts to effect a thorough inspection. The FHWA believes that the criteria on which to judge whether or not the vehicle passes the inspection should be more thorough than that used during roadside inspections. Appendix G contains a discussion of the comparison between the NUD-VIP and Appendix G criteria.

Under current rules, all vehicles must be equipped and operated in accordance with the requirements and specifications of 49 CFR Part 393 (49 CFR 393.1(a)). Furthermore, the FMCSRs also require motor carriers to systematically inspect, repair and maintain vehicles under their control. The parts and accessories on these vehicles shall be in a safe and proper operating condition at all times and based on the specifications in 49 CFR Part 393 (49 CFR 396.3(a)(1)). The FHWA believes that by also basing the periodic inspection requirement on the specifications contained in 49 CFR Part 393 there will be greater consistency and compliance with all three requirements (49 CFR Part 393, roadside inspections and periodic inspections).

The specifications in 49 CFR Part 393, however, do not provide adequate criteria for a vehicle inspection, whether it be performed on the road or in a garage. The specifications in 49 CFR Part 393 are comprehensive, and deal with vehicle manufacturing standards, as well as the condition of key safety components of the motor vehicle. The specfications in 49 CFR Part 393 were not intended for those purposes. Inspection criteria have been developed, however, through the years based on the specifications contained in 49 CFR Part 393. Of note are the CVSA vehicle out-of-service criteria and the NUD-VIP. Both sets of criteria have been used extensively. The FHWA has decided

that the vehicle portion of the FHWA North American Uniform Driver-Vehicle Inspection Procedure will be used as the criteria for successful completion of the periodic inspection. The FHWA has chosen to promulgate, in Appendix G of this rule, a modification of NUD-VIP, because it will provide the necessary inspection-related pass/no criteria for the periodic inspection at a more stringent level than the vehicle out-of-service criteria. The NUD-VIP will also provide the proper level of Federal oversight in establishing and revising the criteria.

The FHWA believes that most motor carriers are familiar with the requirements contained in 49 CFR Part 393 and the inspection criteria of NAUD-VIP and CVSA and that this familiarity will allow the Appendix G periodic inspection standards to be integrated into the existing inspection programs with minimum additional burden to the motor carrier industry.

The modified NAUD-VIP (vehicle portion) is included as Appendix G to the FMCSRs. Therefore, proposed § 396.25 is no longer needed and has been eliminated.

Vehicles subjected to random roadside vehicle checks which inspect vehicles using the criteria included in Appendix G will be considered to have met the requirements of this rule if they pass the inspection. Note that the current CVSA out-of-service criteria, while very similar to that contained in Appendix G, are not identical. The fact that a vehicle is subjected to and passes roadside inspection (e.g., receiving a CVSA decal) does not necessarily satisfy the requirements of the periodic inspection under this rule. In order to meet the requirements for a periodic inspection during a roadside inspection, the inspection must be performed using, as a minimum, the criteria contained in Appendix G of this subchapter. Included in Appendix G is a comparison of the standards in Appendix G and the CVSA out-of-service criteria.

By relating a portion of the periodic inspection standards (those relating to 49 CFR Part 393) to the standards used for other inspections and the general vehicle condition requirements noted earlier, the FHWA believes that a coherent and comprehensive inspection program will result.

FHWA Activities To Monitor the Effectiveness of this Rule

Over the next year, the FHWA will continue to work with the States, The Canadian Council of Motor Transport Administrators, the CVSA and the motor carrier industry to examine, and if necessary, strengthen existing inspection programs. Specifically, States will be encouraged to utilize their periodic vehicle inspection programs to meet the purposes of this rule. Those States which do not provide a State inspection program may wish to consider the safety benefits of such programs. Further, States which certify third parties (e.g., dealerships, garages, service centers) to perform inspections are encouraged to consider similar certification programs for motor carriers that wish to self-inspect under the provisions of this rule. The industry is also encouraged to focus on the quality of motor vehicle inspectors and institute programs to assure that those inspectors are aware of the most current and effective inspection techniques.

In order to implement § 396.23(b)(2), the FHWA will request that the State with periodic inspection programs provide FHWA with an assessment of whether its program is comparable or as "effective" as this rule. The FHWA also requests that States submit appropriate supporting data. The FHWA will review the information and will determine, based on the requirements of this part, if a State's periodic commercial motor vehicle inspection program, for States with such a program, is as effective as that required under this rule. If the States does not submit an assessment, the FHWA will initiate the review and determination absent that information. The FHWA does not envision that each element of a State's program will have to match exactly the requirements of this rule. However, the FHWA will expect the program be conducted at least annually and include a comprehensive inspection of the vehicle's key safety components. Inspection standards, recordkeeping, inspector qualifications and provisions/contracts for self-inspection or third party inspection (i.e., by commercial garages, dealers, etc.) will be evaluated. If only certain vehicle types are included in the State inspection programs which otherwise is as effective as the Federal standard, then approval could be given for those vehicle types included in the State program. The FHWA will notify the State of its determination and will publish this information in the **Federal Register** by September 5, 1989, to inform the public of its determinations.

The FHWA's evaluation of the States' periodic inspection programs for commercial motor vehicles is in no way intended to represent a Federal preemption of such programs. States would still be permitted, and encouraged, to conduct such periodic inspection programs. The intent of the evaulation is to determine whether a State's periodic inspection program is as effective as the Federal standards contained in this rule. If the State program is determined to be not as effective, commercial motor vehicles registered in that State will be required to self-inspect or obtain an inspection from a third party, or undergo an acceptable periodic inspection performed in another State, as set forth in § 396.17. The third party may be the State inspector conducting the State inspections.

The FHWA also intends to take a very active role in evaluating the effectiveness of this rule and inspection progams in general. Specifically, the FHWA will be performing special studies to determine levels of compliance as part of random roadside checks and motor carrier safety/compliance reviews. Documentation of inspector qualifications will be a key item to be checked during safety and/or compliance reviews. The FHWA fully intends to review and enforce these periodic inspection requirements and sanction motor carriers found to be violating the requirements. Use of unqualified inspectors will nullify the inspection performed by such individuals.

The FHWA intends to evaluate compliance with these requirements by motor carriers who choose to self-inspect and to evaluate the effectiveness of state sanctioned self-inspection programs. Particular attention will be given to the size of the carrier and the type of self-inspection performed (e.g., frequency, completeness, follow-up repair and maintenance procedures). The factors considered when evaluating the effectiveness of self-inspections will include: (1) The last date of State inspection, (2) whether inspection was done at a public inspection station or if the motor carrier self-inspected the vehicle, (3) mechanical deficiencies, and other factors deemed appropriate. The results of the FHWA's evaluations of State self-inspections will be reported to the Secretary within 1 year of publication of this final rule. As noted earlier, the FHWA intends to take a very active role in evaluating the effectiveness of this rule. An initial report on the overall effectiveness of this rule to the Secretary is anticipated to be completed by 1 year from the effective date of this rule.

The results of these evaluations will determine if more stringent requirements or other amendments are needed. If so, the FHWA fully intends to initiate further rulemaking in this area.

Effect on State Laws and Regulations; Preemption

Section 210(b) of the Act requires that the Secretary establish Federal standards for annual or more frequent inspections of commercial motor vehicles and retention by employers of records of such inspections.

Section 210(d)(1) states that except as provided in paragraph (2), this chapter of the United States Code shall not be construed as:

(A) Preventing any State or voluntary group of States from imposing more stringent standards for use in their own periodic roadside inspection programs of commercial motor vehicles;

(B) Preventing any State from having in effect and enforcing a program for inspection of commercial motor vehicles which the Secretary determines is as effective as the Federal standards established under subsection (b) of this section;

(C) Preventing any State from having in effect and enforcing a program for inspection of commercial motor vehicles which meets the requirements for membershp in the Commercial Vehicle Safety Alliance as such requirements were in effect on October 30, 1984;

(D) Requiring any State which has in effect and is enforcing a program described in subparagraph (B) or (C) to enforce any Federal standard established under subsection (b) of this section or to adopt any provision pertaining to inspection of commercial motor vehicles in addition to such program in order to comply with such Federal standards.

Section 210(d)(2) states that if, after notice and an opportunity for a hearing, the Secretary determines that any State which has in effect and is enforcing a program described in paragraph (1)(C) of this subsection is not enforcing such program in a manner which achieves the objectives of this section, the Federal standards established under subsection (b) of this section shall preempt such program, with respect to the inspection of commercial motor vehicles in such State and such program shall not be in effect and enforced with respect to such vehicles.

Section 210(f) states that the Federal standards established in this rule shall have no effect and shall not be enforced with respect to the inspection of commercial motor vehicles in any State which has in effect and is enforcing a program that is as effective as the Federal standards or which meets the requirements for membership in the CVSA if the Secretary determines that such Federal standards not having effect and being enforced with respect to such inspection is in the public interest and consistent with public safety.

The FHWA interprets the above provisions of law to mean that States or voluntary groups of States may, for their own purposes, impose more stringent standards for periodic roadside inspection programs than those established in this rule. However, commercial motor vehicles need only meet the Federal standards in this rule (or a States inspection program which is determined to be as effective as this rule) in order to satisfy the inspection requirements of this rule. States may also conduct inspection programs that are determined by the Secretary to be as effective as the standards established in this rule. States may also conduct inspection programs which meet the requirements for membership in the CVSA, unless, after notice and an opportunity for a hearing, the Secretary determines that the State is not enforcintg such a program in a manner which achieves the objectives of this section of the Act. In that case, the State roadside inspection program would not be available to the motor carrier to meet the requirements of this rule and the motor carrier must use an alternative means to meet the Federal standards. States that conduct inspection programs which are as effective as the Federal standards established in this rule and States that conduct inspection programs which meet the requirements for membership in the CVSA are not required to enforce the Federal standards in this rule or to adopt any inspection provision in addition to such programs in order to comply with the Federal standards in this rule.

States that have periodic inspection programs, other than the roadside programs, which are determined "not as effective" as this rule will not be preempted by this rule. Such programs, while not satisfying the motor carrier's annual vehicle inspection requirement, provide a supplemental review of the vehicle's condition, and as such, should contribute to the safe operation of a commercial vehicle.

Regulatory Impacts

Because the impact of this proposal will not result in an annual effect on the economy of $100 million, a major increase in costs or prices, or significant adverse effects on the American economy, the FHWA has determined that this document does not contain a major rule under Executive Order 12291 but is a significant regulation under the regulatory policies and procedures of the Department of Transportation because of the public interest involved. Pursuant to Executive Order 12498, this rulemaking is included on the Regulatory Program for Significant Actions. The FHWA evaluation indicates that accident reduction resulting from the rule would amount to approximately $93 million per year. The incremental cost of compliance would be about $16 million annually. Thus, the net benefit to society would be on the order of $77 million per year, and would be expected to continue for the life of the rule. A regulatory evaluation has been prepared and is available for review in the public docket.

Under the criteria of the Regulatory Flexibility Act, the FHWA hereby certifies that this action does not have a significant economic impact on a substantial number of small business entities.

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1980 (Pub. L. 99–511), the recordkeeping provisions that are included in this regulation are being submitted to the Office of Management and Budget.

A regulatory information number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross reference this action with the Unified Agenda.

Federalism Impact

In promulgating this rule, the FHWA has considered the President's Executive Order on "Federalism" issued on October 26, 1987. (E.O. 12612, 52 FR 41685) The purpose of the Executive Order is to assure the appropriate division of governmental responsibilities between the national government and the States. This rule implements a specific legislative directive to establish minimum Federal safety standards for commercial motor vehicles in interstate commerce contained in section 206 of the Motor Carrier Safety Act of 1984 (49 U.S.C. 2505). Therefore, it has been determined that the Federalism implications to be considered under the Executive Order do not apply to this rule.

In addition, the FHWA believes its requirement to determine if a State's periodic inspection program is as effective as that contained in this rule does not in any way place a requirement on a State to modify and/or develop a periodic inspection program and therefore, preserves a State's flexibility as required by the Executive Order.

In consideration of the foregoing, the FHWA hereby amends Title 49, Code of Federal Regulations, Chapter III, Subchapter B as set forth below.

List of Subjects in 49 CFR Part 396

Highway safety, Motor carriers, Motor vehicle safety, and Reporting and recordkeeping requirements.

(Catalog of Federal Domestic Assistance Program Number 20.217, Motor Carrier Safety)

Issued on November 21, 1988.

Robert E. Farris,

Federal Highway Administrator.

PART 396—INSPECTION, REPAIR, AND MAINTENANCE

1. The authority citation for 49 CFR Part 396 is revised to read as follows:

Authority: Section 210 of Pub. L. 98–554, October 30, 1984, 98 Stat. 2839 (49 U.S.C. App. 2509); 49 U.S.C. 3102; 49 CFR 1.48.

2. Section 396.15 is amended by revising the heading and paragraph (a) to read as follows:

§ 396.15 Driveaway-towaway operations and inspections.

(a) *General.* Effective December 7, 1989, every motor carrier, with respect to motor vehicles engaged in driveaway-towaway operations, shall comply with the requirements of this part. **Exception:** Maintenance records required by § 396.3, the vehicle inspection report required by § 396.11, and the periodic inspection required by § 396.17 of this part shall not be required for any vehicle which is part of the shipment being delivered.

* * * * *

3. Part 396 is amended by adding §§ 396.17, 396.19, 396.21 and 396.23 to read as follows:

§ 396.17 Periodic inspection.

(a) Every commercial motor vehicle shall be inspected as required by this section. The inspection shall include, at a minimum, the parts and accessories set forth in Appendix G of this subchapter.

Note: The term commercial motor vehicle includes each vehicle in a combination vehicle. For example, for a tractor semitrailer, fulltrailer combination, the tractor, semitrailer, and the fulltrailer (including the converter dolly if so equipped) shall each be inspected.

(b) Except as provided in § 396.23, a motor carrier shall inspect or cause to be inspected all motor vehicles subject to its control.

(c) A motor carrier shall not use a commercial motor vehicle unless each component identified in Appendix G has passed an inspection in accordance with the terms of this section at least once during the preceding 12 months and a copy of the inspection report is on the vehicle.

(d) A motor carrier may perform the required annual inspection for vehicles under the carrier's control which are not subject to an inspection under § 396.23(b)(1).

(e) In lieu of the self inspection provided for in paragraph (d) of this section, a motor carrier may choose to have a commercial garage, fleet leasing company, truck stop, or other similar commercial business perform the inspection as its agent, provided that business operates and maintains facilities appropriate for commercial vehicle inspections and it employs qualified inspectors, as required by § 396.19.

(f) Vehicles passing roadside or periodic inspections performed under the auspices of any State government or equivalent jurisdiction or the FHWA, meeting the minimum standards contained in Appendix G of this subchapter, will be considered to have met the requirements of an annual inspection for a period of 12 months commencing from the last day of the month in which the inspection was performed, except as provided in § 396.23(b)(1).

(g) It shall be the responsibility of the motor carrier to ensure that all parts and accessories not meeting the minimum standards set forth in Appendix G to this subchapter are repaired promptly.

(h) Failure to perform properly the annual inspection set forth in this section shall cause the motor carrier to be subject to the penalty provisions provided by 49 U.S.C. 521(b).

§ 396.19 Inspector qualifications.

(a) It shall be the motor carrier's responsibility to ensure that the individual(s) performing an annual inspection under § 396.17 (d) or (e) is qualified as follows:

(1) Understands the inspection criteria set forth in 49 CFR Part 393 and Appendix G of this subchapter and can identify defective components;

(2) Is knowledgeable of and has mastered the methods, procedures, tools and equipment used when performing an inspection; and

(3) Is capable of performing an inspection by reason of experience, training, or both as follows:

(i) Successfully completed a State or Federal-sponsored training program or has a certificate from a State or Canadian Province which qualifies the person to perform commercial motor vehicle safety inspections, or

(ii) Have a combination of training and/or experience totaling at least 1 year. Such training and/or experience may consist of:

(A) Participation in a truck manufacturer-sponsored training program or similar commercial training program designed to train students in truck operation and maintenance;

(B) Experience as a mechanic or inspector in a motor carrier maintenance program;

(C) Experience as a mechanic or inspector in truck maintenance at a commercial garage, fleet leasing company, or similar facility; or

(D) Experience as a commercial vehicle inspector for a State, Provincial or Federal Government.

(b) Evidence of that individual's qualifications under this section shall be retained by the motor carrier for the period during which that individual is performing annual motor vehicle inspections for the motor carrier, and for one year thereafter. However, motor carriers do not have to maintain documentation of inspector qualifications for those inspections performed either as part of a State periodic inspection program or at the roadside as part of a random roadside inspection program.

§ 396.21 Periodic inspection recordkeeping requirements.

(a) The qualified inspector performing the inspection shall prepare a report which:

(1) Identifies the individual performing the inspection, including the individual's printed or typed name and signature;

(2) Identifies the registered owner of the vehicle;

(3) Identifies the motor carrier operating the vehicle, if other than the registered owner;

(4) Identifies the date and location of the inspection;

(5) Identifies the license plate number and vehicle identification number of the vehicle being inspected;

(6) Identifies the vehicle components inspected and describes the results of the inspection, including the identification of those components not meeting the minimum standards set forth in Appendix G to this subchapter; and

(7) Certifies the accuracy and completeness of the inspection as complying with all the requirements of this section.

(b)(1) The original or a copy of the inspection report shall also be retained by the motor carrier under whose control the vehicle operates for 30 consecutive days or more, for a period

of 1 year. The inspection report shall be retained where the vehicle is either housed or maintained.

(2) The original or a copy of the inspection report shall be maintained on the vehicle and available for inspection upon demand of an authorized Federal, State or local official.

§ 396.23 Equivalent to periodic inspection.

(a) The motor carrier may meet the requirements of § 393.17 through a State or other jurisdiction's roadside inspection program. The inspection must have been performed during the preceding 12 months. In using the roadside inspection, the motor carrier would need to retain a copy of an annual inspection report showing that the inspection was performed in accordance with the minimum periodic inspection standards set forth in Appendix G to this subchapter. When accepting such an inspection report, the motor carrier must ensure that the report complies with the requirements of § 396.21(a).

(b)(1) If a commercial motor vehicle is subject to a mandatory State inspection program which is determined by the Administrator to be as effective as § 396.17, the motor carrier shall meet the requirement of § 396.17 through that State's inspection program. Commercial motor vehicle inspections may be conducted by State personnel, at State authorized commercial facilities, or by the motor carrier under the auspices of a State authorized self-inspection program.

(2) Should the FHWA determine that a State inspection program, in whole or in part, is not as effective as § 396.17, the motor carrier must ensure that the periodic inspection required by § 396.17 is performed on all commercial motor vehicles under its control in a manner specified in § 396.17.

4. Subchapter B is amended by adding Appendix G to read as follows:

Appendix G to Subchapter B—Minimum Periodic Inspection Standards

A vehicle does not pass an inspection if it has one of the following defects or deficiencies:

1. *Brake System.*

a. *Service brakes.*—(1) Absence of braking action on any axle required to have brakes upon application of the service brakes (such as missing brakes or brake shoe(s) failing to move upon application of a wedge, S-cam, cam, or disc brake).

(2) Missing or broken mechanical components including: shoes, lining, pads, springs, anchor pins, spiders, cam rollers, push-rods, and air chamber mounting bolts.

(3) Loose brake components including air chambers, spiders, and cam shaft support brackets.

(4) Audible air leak at brake chamber (Example-ruptured diaphragm, loose chamber clamp, etc.).

(5) Readjustment limits. The maximum stroke at which brakes should be readjusted is given below. Any brake ¼" or more past the readjustment limit or any two brakes less than ¼" beyond the readjustment limit shall be cause for rejection. Stroke shall be measured with engine off and reservoir pressure of 80 to 90 psi with brakes fully applied.

BOLT TYPE BRAKE CHAMBER DATA

Type	Effective area (sq. in.)	Outside dia. (in.)	Maximum stroke at which brakes should be readjusted
A	12	6 15/16	1⅜
B	24	9 3/16	1¾
C	16	8 1/16	1¾
D	6	5¼	1¼
E	9	6 3/16	1⅜
F	36	11	2¼
G	30	9⅞	2

ROTOCHAMBER DATA

Type	Effective area (sq. in.)	Outside dia. (in.)	Maximum stroke at which brakes should be readjusted
9	9	4 9/32	1½
12	12	4 13/16	1½
16	16	5 13/32	2
20	20	5 15/16	2
24	24	6 13/32	2
30	30	7 1/16	2¼
36	36	7⅝	2¾
50	50	8⅞	3

CLAMP TYPE BRAKE CHAMBER DATA

Type	Effective area (sq. in.)	Outside dia. (in.)	Maximum stroke at which brakes should be readjusted
6	6	4½	1¼
9	9	5¼	1⅜
12	12	5 11/16	1⅜
16	16	6⅜	1¾
20	20	6 25/32	1¾
24	24	7 1/32	[1] 1¾
30	30	8 3/32	2
36	36	9	2¼

[1] (2" for long stroke design).

Wedge Brake Data.—Movement of the scribe mark on the lining shall not exceed 1/16 inch.

(6) Brake linings or pads.

(a) Lining or pad is not firmly attached to the shoe;

(b) Saturated with oil, grease, or brake fluid; or

(c) Non-steering axles: Lining with a thickness less than ¼ inch at the shoe center for air drum brakes, 1/16 inch or less at the shoe center for hydraulic and electric drum brakes, and less than ⅛ inch for air disc brakes.

(d) Steering axles: Lining with a thickness less than ¼ inch at the shoe center for drum brakes, less than ⅛ inch for air disc brakes and 1/16 inch or less for hydraulic disc and electric brakes.

(7) Missing brake on any axle required to have brakes.

(8) Mismatch across any power unit steering axle of:

(a) Air chamber sizes.

(b) Slack adjuster length.

b. *Parking Brake System.* No brakes on the vehicle or combination are applied upon actuation of the parking brake control, including driveline hand controlled parking brakes.

c. *Brake Drums or Rotors.*

(1) With any external crack or cracks that open upon brake application (do not confuse short hairline heat check cracks with flexural cracks).

(2) Any portion of the drum or rotor missing or in danger of falling away.

d. *Brake Hose.*

(1) Hose with any damage extending through the outer reinforcement ply. (Rubber impregnated fabric cover is not a reinforcement ply). (Thermoplastic nylon may have braid reinforcement or color difference between cover and inner tube. Exposure of second color is cause for rejection.

(2) Bulge or swelling when air pressure is applied.

(3) Any audible leaks.

(4) Two hoses improperly joined (such as a splice made by sliding the hose ends over a piece of tubing and clamping the hose to the tube).

(5) Air hose cracked, broken or crimped.

e. *Brake Tubing.*

(1) Any audible leak.

(2) Tubing cracked, damaged by heat, broken or crimped.

f. *Low Pressure Warning Device* missing, inoperative, or does not operate at 55 psi and below, or ½ the governor cut-out pressure, whichever is less.

g. *Tractor Protection Valve.* Inoperable or missing tractor protection valve(s) on power unit.

h. *Air Compressor.*

(1) Compressor drive belts in condition of impending or probable failure.

(2) Loose compressor mounting bolts.

(3) Cracked, broken or loose pulley.

(4) Cracked or broken mounting brackets, braces or adapters.

i. *Electric Brakes.*

(1) Absence of braking action on any wheel required to have brakes.

(2) Missing or inoperable breakaway braking device.

j. *Hydraulic Brakes. (Including Power Assist Over Hydraulic and Engine Drive Hydraulic Booster).*

(1) Master cylinder less than ¼ full.

(2) No pedal reserve with engine running except by pumping pedal.

(3) Power assist unit fails to operate.

(4) Seeping or swelling brake hose(s) under application of pressure.

(5) Missing or inoperative check valve.

(6) Has any visually observed leaking hydraulic fluid in the brake system.

(7) Has hydraulic hose(s) abraded (chafed) through outer cover-to-fabric layer.

(8) Fluid lines or connections leaking, restricted, crimped, cracked or broken.

(9) Brake failure or low fluid warning light on and/or inoperative.

k. *Vacuum Systems.* Any vacuum system which:

(1) Has insufficient vacuum reserve to permit one full brake application after engine is shut off.

(2) Has vacuum hose(s) or line(s) restricted, abraded (chafed) through outer cover to cord ply, crimped, cracked, broken or has collapse of vacuum hose(s) when vacuum is applied.

(3) Lacks an operative low-vacuum warning device as required.

2. *Coupling devices.*

a. *Fifth Wheels.*

(1) Mounting to frame.

(a) Any fasteners missing or ineffective.

(b) Any movement between mounting components.

(c) Any mounting angle iron cracked or broken.

(2) Mounting plates and pivot brackets.

(a) Any fasteners missing or ineffective.

(b) Any welds or parent metal cracked.

(c) More than ⅜ inch horizontal movement between pivot bracket pin and bracket.

(d) Pivot bracket pin missing or not secured.

(3) Sliders.

(a) Any latching fasteners missing or ineffective.

(b) Any fore or aft stop missing or not securely attached.

(c) Movement more than ⅜ inch between slider bracket and slider base.

(d) Any slider component cracked in parent metal or weld.

(4) Lower coupler.

(a) Horizontal movement between the upper and lower fifth wheel halves exceeds ½ inch.

(b) Operating handle not in closed or locked position.

(c) Kingpin not properly engaged.

(d) Separation between upper and lower coupler allowing light to show through from side to side.

(e) Cracks in the fifth wheel plate.

Exceptions: Cracks in fifth wheel approach ramps and casting shrinkage cracks in the ribs of the body of a cast fifth wheel.

(f) Locking mechanism parts missing, broken, or deformed to the extent the kingpin is not securely held.

b. *Pintle Hooks.*

(1) Mounting to frame.

(a) Any missing or ineffective fasteners (a fastener is not considered missing if there is an empty hole in the device but no corresponding hole in the frame or vice versa).

(b) Mounting surface cracks extending from point of attachment (e.g., cracks in the frame at mounting bolt holes).

(c) Loose mounting.

(d) Frame cross member providing pintle hook attachment cracked.

(2) Integrity.

(a) Cracks anywhere in pintle hook assembly.

(b) Any welded repairs to the pintle hook.

(c) Any part of the horn section reduced by more than 20%.

(d) Latch insecure.

c. *Drawbar/Towbar Eye.*

(1) Mounting.

(a) Any cracks in attachment welds.

(b) Any missing or ineffective fasteners.

(2) Integrity.

(a) Any cracks.

(b) Any part of the eye reduced by more than 20%.

d. *Drawbar/Towbar Tongue.*

(1) Slider (power or manual).

(a) Ineffective latching mechanism

(b) Missing or ineffective stop.

(c) Movement of more than ¼ inch between slider and housing.

(d) Any leaking, air or hydraulic cylinders, hoses, or chambers (other than slight oil weeping normal with hydraulic seals).

(2) Integrity.

(a) Any cracks.

(b) Movement of ¼ inch between subframe and drawbar at point of attachment.

e. *Safety Devices.*

(1) Safety devices missing.

(2) Unattached or incapable of secure attachment.

(3) Chains and hooks.

(a) Worn to the extent of a measurable reduction in link cross section.

(b) Improper repairs including welding, wire, small bolts, rope and tape.

(4) Cable.

(a) Kinked or broken cable strands.

(b) Improper clamps or clamping.

f. *Saddle-Mounts.*

(1) Method of attachment.

(a) Any missing or ineffective fasteners.

(b) Loose mountings.

(c) Any cracks or breaks in a stress or load bearing member.

(d) Horizontal movement between upper and lower saddle-mount halves exceeds ¼ inch.

3. *Exhaust System.*

a. Any exhaust system determined to be leaking at a point forward of or directly below the driver/sleeper compartment.

b. A bus exhaust system leaking or discharging to the atmosphere:

(1) Gasoline powered—excess of 6 inches forward of the rearmost part of the bus.

(2) Other than gasoline powered—in excess of 15 inches forward of the rearmost part of the bus.

(3) Other than gasoline powered—forward of a door or window designed to be opened. (exception: Emergency exits).

c. No part of the exhaust system of any motor vehicle shall be so located as would be likely to result in burning, charring, or damaging the electrical wiring, the fuel supply, or any combustible part of the motor vehicle.

4. *Fuel System.*

a. A fuel system with a visable leak at any point.

b. A fuel tank filler cap missing.

c. A fuel tank not securely attached to the motor vehicle by reason of loose, broken or missing mounting bolts or brackets (some fuel tanks use springs or rubber bushings to permit movement).

5. *Lighting Devices.* All lighting devices and reflectors required by Section 393 shall be operable.

6. *Safe Loading.*

a. Part(s) of vehicle or condition of loading such that the spare tire or any part of the load or dunnage can fall onto the roadway.

b. Protection Against Shifting Cargo—Any vehicle without a front-end structure or equivalent device as required.

7. *Steering Mechanism.*

a. *Steering Wheel Free Play (on vehicles equipped with power steering the engine must be running).*

Steering wheel diameter	Manual steering system	Power steering system
16"	2"	4½"
18"	2¼"	4¾"
20"	2½"	5¼"
22"	2¾"	5¾"

b. *Steering Column.*

(1) Any absence or looseness of U-bolt(s) or positioning part(s).

(2) Worn, faulty or obviously repair welded universal joint(s).

(3) Steering wheel not properly secured.

c. *Front Axle Beam and All Steering Components Other Than Steering Column.*

(1) Any crack(s).

(2) Any obvious welded repair(s).

d. *Steering Gear Box.*

(1) Any mounting bolt(s) loose or missing.

(2) Any crack(s) in gear box or mounting brackets.

e. *Pitman Arm.* Any looseness of the pitman arm on the steering gear output shaft.

f. *Power Steering.* Auxiliary power assist cylinder loose.

g. *Ball and Socket Joints.*

(1) Any movement under steering load of a stud nut.

(2) Any motion, other than rotational, between any linkage member and its attachment point of more than ¼ inch.

h. *Tie Rods and Drag Links.*

(1) Loose clamp(s) or clamp bolt(s) on tie rods or drag links.

(2) Any looseness in any threaded joint.

i. *Nuts.* Nut(s) loose or missing on tie rods, pitman arm, drag link, steering arm or tie rod arm.

j. *Steering System.* Any modification or other condition that interferes with free movement of any steering component.

8. *Suspension.*

a. Any U-bolt(s), spring hanger(s), or other axle positioning part(s) cracked, broken, loose or missing resulting in shifting of an axle from its normal position. (After a turn, lateral axle displacement is normal with some suspensions. Forward or rearward operation in a straight line will cause the axle to return to alignment).

b. *Spring Assembly.*

(1) Any leaves in a leaf spring assembly broken or missing.

(2) Any broken main leaf in a leaf spring assembly. (Includes assembly with more than one main spring).

(3) Coil spring broken.
(4) Rubber spring missing.
(5) One or more leaves displaced in a manner that could result in contact with a tire, rim, brake drum or frame.
(6) Broken torsion bar spring in a torsion bar suspension.
(7) Deflated air suspension, i.e., system failure, leak, etc.

c. *Torque, Radius or Tracking Components.* Any part of a torque, radius or tracking component assembly or any part used for attaching the same to the vehicle frame or axle that is cracked, loose, broken or missing. (Does not apply to loose bushings in torque or track rods.)

9. *Frame.*

a. *Frame Members.*

(1) Any cracked, broken, loose, or sagging frame member.
(2) Any loose or missing fasteners including fasteners attaching functional component such as engine, transmission, steering gear, suspension, body parts, and fifth wheel.

b. *Tire and Wheel Clearance.* Any condition, including loading, that causes the body or frame to be in contact with a tire or any part of the wheel assemblies.

c. (1) *Adjustable Axle Assemblies (Sliding Subframes).* Adjustable axle assembly with locking pins missing or not engaged.

10. *Tires.*

a. Any tire on any steering axle of a power unit.

(1) With less than 4/32 inch tread when measured at any point on a major tread groove.
(2) Has body ply or belt material exposed through the tread or sidewall.
(3) Has any tread or sidewall separation.
(4) Has a cut where the ply or belt material is exposed.
(5) Labeled "Not for Highway Use" or displaying other marking which would exclude use on steering axle.
(6) A tube-type radial tire without radial tube stem markings. These markings include a red band around the tube stem, the word "radial" embossed in metal stems, or the word "radial" molded in rubber stems.
(7) Mixing bias and radial tires on the same axle.
(8) Tire flap protrudes through valve slot in rim and touches stem.
(9) Regrooved tire except motor vehicles used solely in urban or suburban service (see exception in 393.75(e).
(10) Boot, blowout patch or other ply repair.
(11) Weight carried exceeds tire load limit. This includes overloaded tire resulting from low air pressure.
(12) Tire is flat or has noticeable (e.g., can be heard or felt) leak.
(13) Any bus equipped with recapped or retreaded tire(s).
(14) So mounted or inflated that it comes in contact with any part of the vehicle.

b. All tires other than those found on the steering axle of a power unit:

(1) Weight carried exceeds tire load limit. This includes overloaded tire resulting from low air pressure.
(2) Tire is flat or has noticeable (e.g., can be heard or felt) leak.
(3) Has body ply or belt material exposed through the tread or sidewall.
(4) Has any tread or sidewall separation.
(5) Has a cut where ply or belt material is exposed.
(6) So mounted or inflated that it comes in contact with any part of the vehicle. (This includes a tire that contacts its mate.)
(7) Is marked "Not for highway use" or otherwise marked and having like meaning.
(8) With less than 2/32 inch tread when measured at any point on a major tread groove.

11. *Wheels and Rims.*

a. *Lock or Side Ring.* Bent, broken, cracked, improperly seated, sprung or mismatched ring(s).

b. *Wheels and rims.* Cracked or broken or has elongated bolt holes.

c. *Fasteners (both spoke and disc wheels).* Any loose, missing, broken, cracked, stripped or otherwise ineffective fasteners.

d. *Welds.*

(1) Any cracks in welds attaching disc wheel disc to rim.
(2) Any crack in welds attaching tubeless demountable rim to adapter.
(3) Any welded repair on aluminum wheel(s) on a steering axle.
(4) Any welded repair other than disc to rim attachment on steel disc wheel(s) mounted on the steering axle.

12. *Windshield Glazing.* (Not including a 2 inch border at the top, a 1 inch border at each side and the area below the topmost portion of the steering wheel.) Any crack, discoloration or vision reducing matter except: (1) coloring or tinting applied at time of manufacture; (2) any crack not over ¼ inch wide, if not intersected by any other crack; (3) any damaged area not more than ¾ inch in diameter, if not closer than 3 inches to any other such damaged area; (4) labels, stickers, decalcomania, etc. (see 393.60 for exceptions).

13. *Windshield Wipers.* Any power unit that has an inoperative wiper, or missing or damaged parts that render it ineffective.

Comparison of Appendix G, and the new North American Uniform Driver-Vehicle Inspection Procedure (North American Commercial Vehicle Critical Safety Inspection Items and Out-Of-Service Criteria)

The vehicle portion of the FHWA's North American Uniform Driver-Vehicle Inspection Procedure (NAUD–VIP) requirements, CVSA's North American Commercial Vehicle Critical Safety Inspection Items and Out-Of-Service Criteria and Appendix G of subchapter B are similar documents and follow the same inspection procedures. The same items are required to be inspected by each document. FHWA's and CVSA's out-of-service criteria are intended to be used in random roadside inspections to identify critical vehicle inspection items and provide criteria for placing a vehicle(s) out-of-service. A vehicle(s) is placed out-of-service only when by reason of its mechanical condition or loading it is determined to be so imminently hazardous as to likely cause an accident or breakdown, or when such condition(s) would likely contribute to loss of control of the vehicle(s) by the driver. A certain amount of flexibility is given to the inspecting official whether to place the vehicle out-of-service at the inspection site or if it would be less hazardous to allow the vehicle to proceed to a repair facility for repair. The distance to the repair facility must not exceed 25 miles. The roadside type of inspection, however, does not necessarily mean that a vehicle has to be defect-free in order to continue in service.

In contrast, the Appendix G inspection procedure requires that all items required to be inspected are in proper adjustment, are not defective and function properly prior to the vehicle being placed in service.

Differences Between the Out-of-Service Criteria & FHWA's Annual Inspection

1. *Brake System.*

The Appendix G criteria rejects vehicles with any defective brakes, any air leaks, etc. The out-of-service criteria allows 20% defective brakes on non-steering axles and a certain latitude on air leaks before placing a vehicle out-of-service.

2. *Coupling Devices.*

Appendix G rejects vehicles with any fifth wheel mounting fastener missing or ineffective. The out-of-service criteria allows up to 20% missing or ineffective fasteners on frame mountings and pivot bracket mountings and 25% on slider latching fasteners. The out-of-service criteria also allows some latitude on cracked welds.

3. *Exhaust System.*

Appendix G follows Section 393.83 verbatim. The CVSA out-of-service criteria allows vehicles to exhaust forward of the dimensions given in Section 393.83 as long as the exhaust does not leak or exhaust under the chassis.

4. *Fuel System.*

Same for Appendix G and the out-of-service criteria.

5. *Lighting Devices.*

Appendix G requires all lighting devices required by Section 393 to be operative at all times. The out-of-service criteria only requires one stop light and functioning turn signals on the rear most vehicle of a combination vehicle to be operative at all times. In addition one operative head lamp and tail lamp are required during the hours of darkness.

6. *Safe Loading.*

Same for both Appendix G and the out-of-service criteria.

7. *Steering Mechanism*

Steering lash requirements of Appendix G follows the new requirements of § 393.209.

8. *Suspension*

Appendix G follows the new requirements of § 393.207 which does not allow any broken leaves in a leaf spring assembly. The out-of-service criteria allows up to 25% broken or missing leaves before being placed out-of-service.

9. *Frame*

The out-of-service criteria allows a certain latitude in frame cracks before placing a vehicle out-of-service. Appendix G follows the new requirements of 393.201 which does not allow any frame cracks.

10. *Tires*

Appendix G follows the requirements of 393.75 which requires a tire tread depth of 4/32 inch on power unit steering axles and 2/32 inch on all other axles. The out-of-service criteria only requires 2/32 inch tire tread depth

on power unit steering axles and 2/32 inch on all other axles.

11. *Wheel and Rims*

The out-of-service criteria allows a certain amount latitude for wheel and rim cracks and missing or defective fasteners. Appendix G meets the requirements of the new 393.205 which does not allow defective wheels and rims non-effective nuts and bolts.

12. *Windshield Glazing*

The out-of-service criteria places in a restricted service condition any vehicle that has a crack or discoloration in the windshield area lying within the sweep of the wiper on the drivers side and does not address the remaining area of the windshield. Appendix G addresses requirements for the whole windshield as specified in 393.60.

13. *Windshield Wipers*

Appendix G requires windshield wipers to be operative at all times. The out-of-service criteria only requires that the windshield wiper on the driver's side to be inspected during inclement weather.

[FR Doc. 88-27515 Filed 12-6-88; 8:45 am]

BILLING CODE 4910-22-M